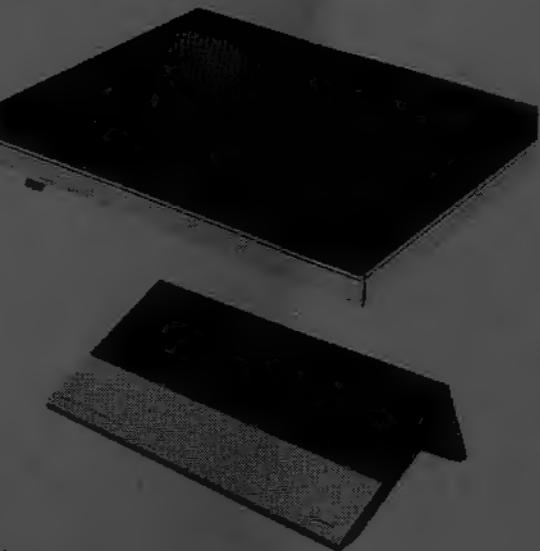


Bang & Olufsen

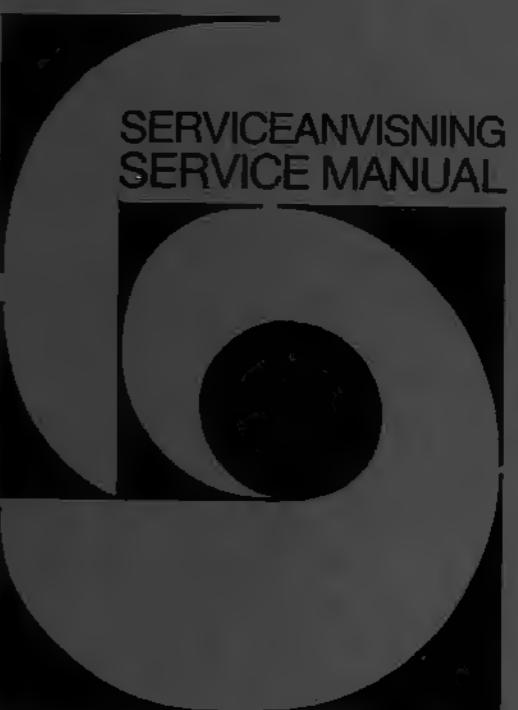


Beomaster 6500

Type 2336, 2337, 2338,
2339, 2340

Master Control Panel

Type 1551

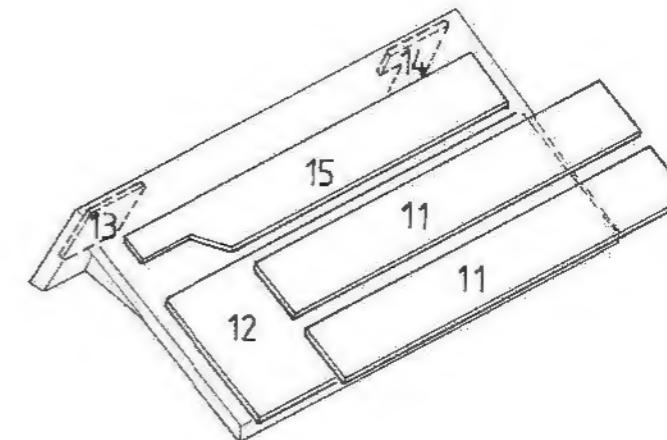
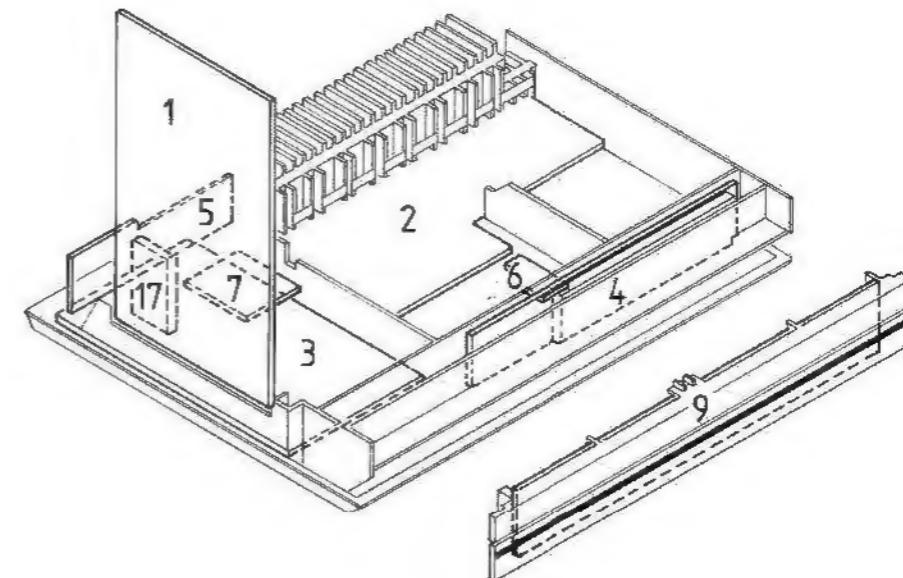


BANG & OLUFSEN
DK - 7600 STRUER
DENMARK

TELEPHONE 97851122*
CABLE ADRESS BANGOLUF
TELEFAX 97853912

3538751 09-89

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2 Output and Power Supply	diagr. B page 2-4	11 Master Control, keyboard	diagr. E page 2-6
3 Preamplifier	diagr. B page 2-4	12 Master Control, Mircocomputer	diagr. E page 2-6
4 Microcomputer	diagr. C page 2-5	13 Master Control, IR-left	diagr. E page 2-6
5 Speaker sockets	diagr. B page 2-4	14 Master Control, IR-right	diagr. E page 2-6
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7 Relay	diagr. B page 2-4	17 Tuner - FM	diagr. ??? page 1-7

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Elektrisk stykliste	3
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TECHNICAL SPECIFICATIONS

Beomaster 6500	Type 2336, 2337, 2338, 2339, 2340 Master Control Panel 6500, two-way Beolink 7000, two-way Beolink 1000, one-way
Long-term max. output power IEC	2 x 110 watts/8 ohms
Total harmonic distortion IHF	<0.09%/50 watts 20-20,000 Hz
Dynamic headroom	1.5 dB/8 ohms
Intermodulation IHF	<0.1%
 Input sensitivity/impedance:	
Phono	30 mV/100 kohms
Tape - AUX	30 mV/100 kohms
CD player	20 mV/100 kohms
Line	25 mV/100 kohms
 Response vs frequency:	
Phono	20-20,000 Hz ±1.5 dB
Tape	20-20,000 Hz ±1.5 dB
Wideband damping factor	50
 Signal-to-noise ratio:	
Phono A-weighted, 1 W IHF	>78 dB
Tape A-weighted, 1 W IHF	>80 dB
Tape A-weighted, 50 W output	>97 dB
Channel separation 10,000 Hz	>50 dB
 Output:	
Tape	500 mV/1 kohms
Line	500 mV/1 kohms
External power amplifier	1 V/1 kohms
Headphones	Max. 10 V/470 ohms
Bass control at 40 Hz	±10 dB
Treble control at 12,500 Hz	±8 dB
 FM tuner section:	
FM range	76-90 MHz (Type 2339) 87.5-108 MHz (Type 2336, 2337, 2338, 2340)
FM aerial impedance	75 and 240 ohms
Usable sensitivity mono	14 dBf-1.4 µV/75 ohms
Usable sensitivity stereo	19 dBf-2.5 µV/75 ohms
50 dB quieting sensitivity mono	19 dBf-2.5 µV/75 ohms
50 dB quieting sensitivity stereo	40 dBf-28 µV/75 ohms
Signal-to-noise ratio 65 dBf mono	75 dB
Signal-to-noise ratio 65 dBf stereo	70 dB
Frequency response	20-15,000 Hz ±1 dB
Distortion at 65 dBf mono	0.16%
Distortion at 65 dBf stereo	0.2%
Intermodulation mono	0.1%
Intermodulation stereo	0.1%
Capture ratio	1.7 dB
Adjacent channel selectivity	10 dB
Alternate channel selectivity	70 dB
Spurious response	100 dB
Image response ratio	80 dB
IF response ratio	120 dB

AM suppression	57 dB
Stereo channel separation	45 dB
Subcarrier product rejection	70 dB

AM tuner section:

LW range	150-350 kHz (Type 2336, 2337)
MW range	520-1610 kHz (Type 2336, 2337, 2338, 2339, 2340)
LW sensitivity 20 dB S/N ratio	80 µV
MW sensitivity 20 dB S/N ratio	60 µV

Connections:

Audio Link	CD, Tape 1, Tape 2, PH (RIAA in Beogram 6500)
Audio Aux Link	Beovision, 7 pin
Power Link	Beolab speakers, 2 sockets 8-pin
Speaker Link	Beovox speakers, 2 sockets 4-pin
Master Control Link	2 sockets 3-pin

Power supply	Type 2336 220 V
	Type 2337 240 V
	Type 2338 120 V
	Type 2339 100 V
	Type 2340 240 V

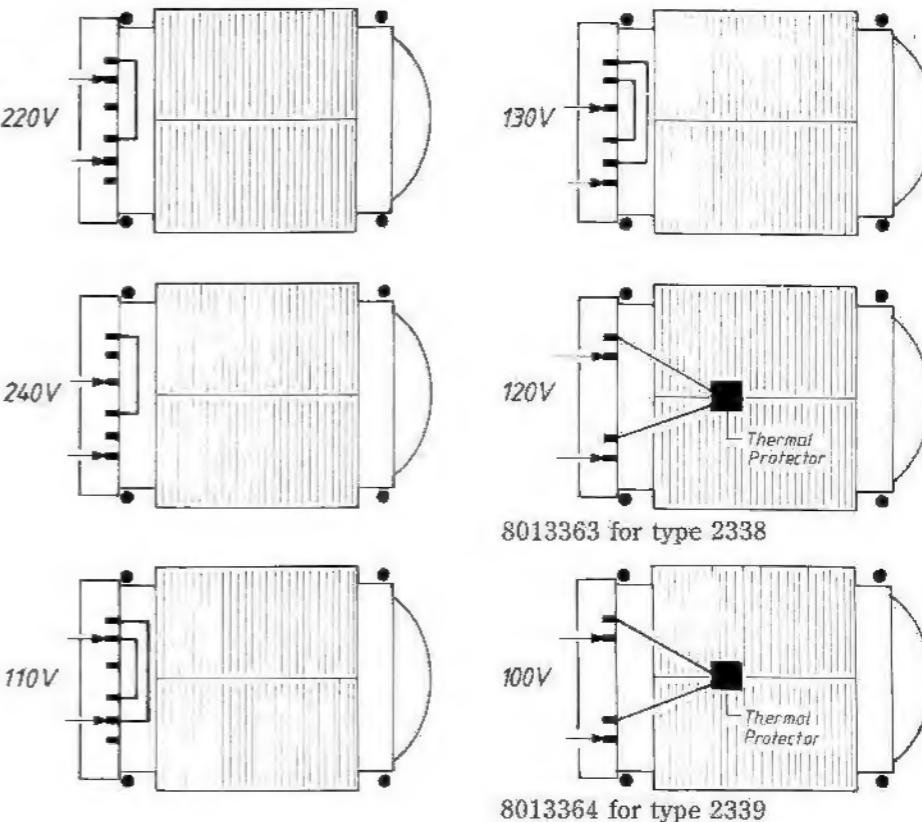
Power frequency	50-60 Hz
Power consumption	Max. 225 watts
Dimensions W x H x D	42 x 7.5 x 32.5
Weight	8.5 kg 18.8 lbs

Installationskit:

RIAA amplifier	8001245
----------------	---------

Subject to change without notice

Tilslutning af
nettransformer/
Connection of
Mains Transformer/



Options:**En Beomaster i et Beolinksysten**

Options eller situationer beskriver hvordan både audio- og videoprodukterne i et Beolinksysten skal programmeres i den valgte stilling.

Option 1 (Situation 1):

Et audio- og et videosystem placeres i samme rum, så signalerne fra Beolink terminalen kan opfanges af begge systemer samtidigt.

Option 2:

Audio- og videosystemet er placeret i hver sit rum, så signalerne fra Beolink terminalen kun kan opfanges af ét system ad gangen.

Beomaster 6500 i Master Control Link 2-systemet:

Option 3:

Anvendes når der er to audiokilder i samme rum (f.eks.: en MCL2-enhed og en Beomaster 6500).

Option 4:

Anvendes når der er to audio- og en videokilde i samme rum (f.eks.: MCL2, Beomaster og Beovision).

Option 0:

Sætter IR-føler ud af funktion, hvilket kan udnyttes f.eks. i butiks vinduer eller ved udstillinger. Der kan dog stadig vælges ny option med Beolink terminalen.

Programmering:

Options programmeres med Beolink terminalen, med Beomaster 6500 i standby:

Tast: **[SOUND]**, Option nr. **[STORE]**
Display viser: Option nr.

Beomaster 6500 er fra fabrikken programmeret til option 1.

Stikdåserne Line in/out og AUX/TV:

Line in/out anvendes ved tilslutning af en equalizer. Husk kortslutningsprop (bestellingsnr. 7220265) når equalizer ikke er tilsluttet.

AUX/TV anvendes ved tilslutning af et Beolink-kompatibelt fjernsyn eller f.eks. Bang & Olufsen båndoptager.

Options:**A Beomaster in a Beolink System**

Options or situations describe how both the audio and video products in a Beolink system are programmed in the chosen setting.

Option 1 (Situation 1):

An audio and a video system are placed in the same room so the signals from Beolink terminal can be received by both systems at the same time.

Option 2:

The audio and video systems are placed in separate rooms so the signals from Beolink terminal can only be received by one system at a time.

Beomaster 6500 in the Master Control Link 2 system:

Option 3:

Is used when there are two audio sources in the same room (e.g. an MCL2 unit and a Beomaster 6500).

Option 4:

Is used when there are two audio sources and one video source in the same room (e.g. MCL2, Beomaster and Beovision).

Option 0:

Puts the IR sensor out of operation; this can be used in shop windows or at exhibitions for example. However, new options can still be selected with Beolink terminalen.

Programming:

Options are programmed with Beolink terminal, with Beomaster 6500 in standby:

Key: **[SOUND]**, Option no. **[STORE]**
Display shows Option no.

Beomaster 6500 is programmed at the factory to option 1.

The Line in/out and AUX/TV sockets:

Line in/out is used for connecting an equalizer. Remember short-circuiting fuse (order no. 7220265) when the equalizer is not connected. AUX/TV is used for connecting a Beolink-compatible television or e.g. Bang & Olufsen cassette recorder.

DIAGRAMFORKLARING

På diagrammerne er der angivet typenumre på transistorer og IC'er. Hvis positionsnummeret er efterfulgt af en stjerne, skal reservedesnummert altid benyttes, da denne komponent er specielt udvalgt, f.eks. TR102*.

Positionsnummeret for udgangsforstærkerens venstre kanal er angivet i paranteser i diagrammet for højre kanal.

Komponenttryk og koordinatsystem

De største printplader er forsynt med komponenttryk og et koordinatsystem på både print- og komponentside.

På diagrammerne er enhver komponent forsynt med et koordinatnummer. Dette fortæller i hvilket koordinat på printpladen, komponenten er placeret. Koordinatnumrene er angivet med mindre skriftype end positionsnumrene.

Styrekredsløb

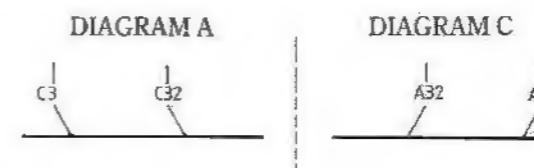
I visse styrekredsløb er den aktive tilstand angivet med en funktions- eller bogstavangivelse. Denne kan eksempelvis være **ST.BY.** = »low« i stand-by-stilling eller **ST.BY.** = »high« i stand-by-stilling.

Ledningsforbindelser

Ledningsforbindelserne på diagrammerne er samlet i »bundter«. De enkelte ledninger er forsynt med en af følgende koder:

INTERN FORBINDELSE PÅ EN DIAGRAMSIDE

Interne forbindelser på en diagramside angives med et tal. Knækket på ledningen viser, i hvilken retning, den anden ende af ledningen findes.

FORBINDELSE TIL EN ANDEN DIAGRAMSIDE

Forbindelsen til en anden diagramside angives med et tal samt et bogstav for det diagram, forbindelsen går til.

EXPLANATION OF DIAGRAM

Type numbers of transistors and ICs are indicated on the diagrams.

If the position number is followed by an asterisk the spare part number must always be used because the component in question has been specially selected, e.g. TR102*.

The position number for the left channel of the output amplifier are stated in brackets in the diagram for right channel.

Component print and coordinate system

The largest PCBs have component prints and a coordinate system on both the print and the component side.

On the diagrams every component has a coordinate number. This indicates in which coordinate on the PCB the component is situated. The coordinate numbers are written in smaller print types than the position numbers.

Control Circuit

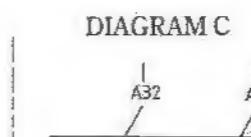
In certain control circuits the active mode is indicated by a function term or by an abbreviation. This may be e.g. **ST.BY.** = low in the stand-by mode or **ST.BY.** = high in the stand-by mode.

Wiring Connections

The wiring connections on the diagrams are assembled in 'bundles'. The individual wires are provided with one of the following codes:

INTERNAL CONNECTION ON ONE DIAGRAM PAGE

Internal connections on a diagram page are indicated by a number. The bend of the wire indicates in which direction the other end of the wire is found.

CONNECTION TO ANOTHER DIAGRAM PAGE

A connection to another diagram page is indicated by a number as well as by a letter of the diagram to which the connection leads.

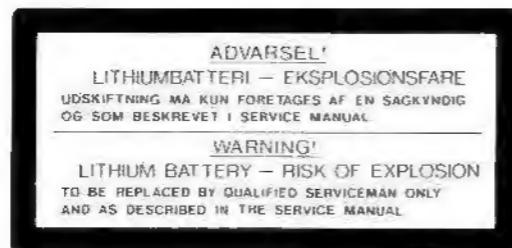
ndicated by

Itage in
e diagram
(s).mbol,
must be
nted in therelation to
apendance of

e.g. 0.7 V.

been
oscilloscope
of 1 Mohm.

), e.g.

**ADVARSEL VED LITHIUM-BATTERIER**

Kortslutning og overopladning af visse typer lithium-batterier kan medføre en voldsom eksplision.

Ved udskiftning af lithium-batteriet i dette apparat må der kun anvendes et batteri af det fabrikat og den type, der er angivet i denne serviceanvisning (se side 4-5).

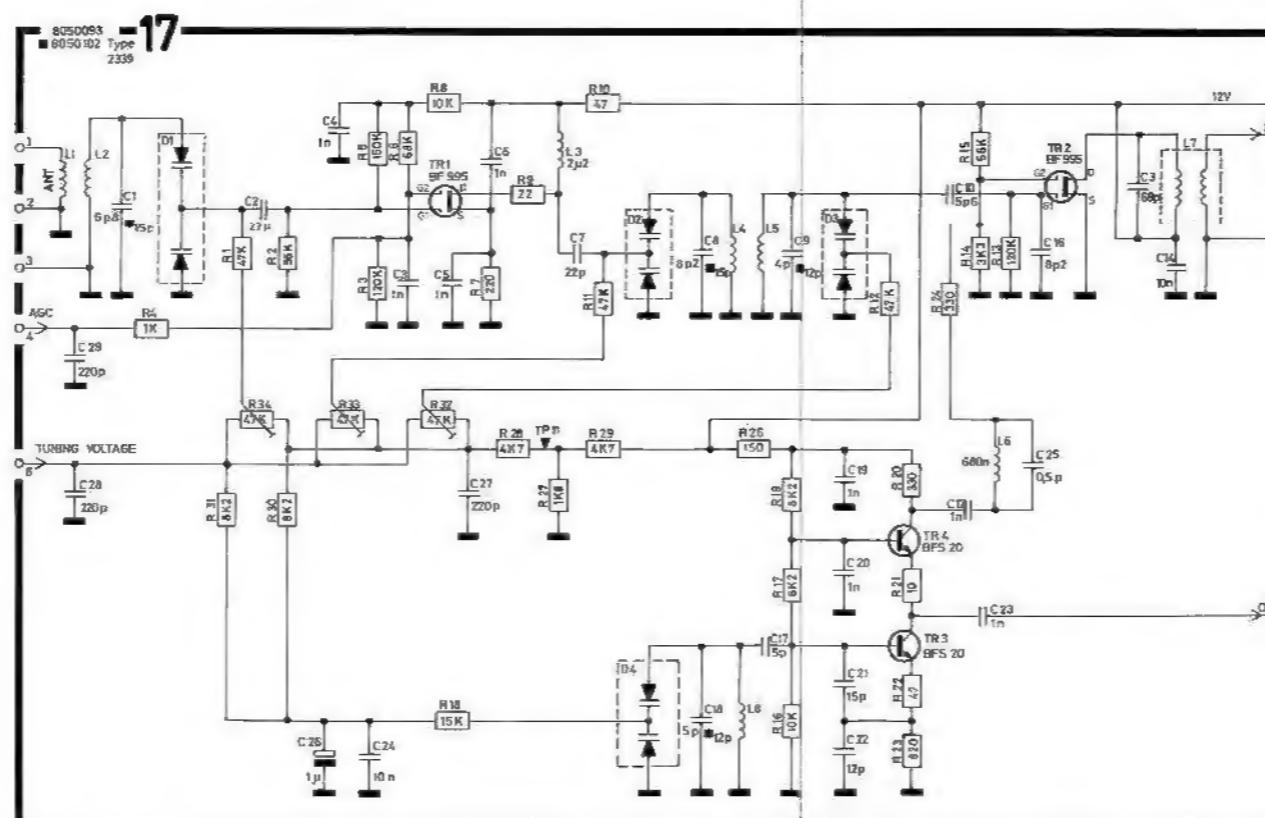
Batteriet skal monteres nøjagtigt som det originale batteri.

WARNING LITHIUM BATTERIES

Short-circuit and overcharging of some types of lithium batteries may result in a violent explosion.

When replacing the lithium battery in this set, use only batteries of the make and type mentioned in this service manual (see page 4-5).

Fit the battery exactly like the old one.

FM TUNER

PLUG SURVEY

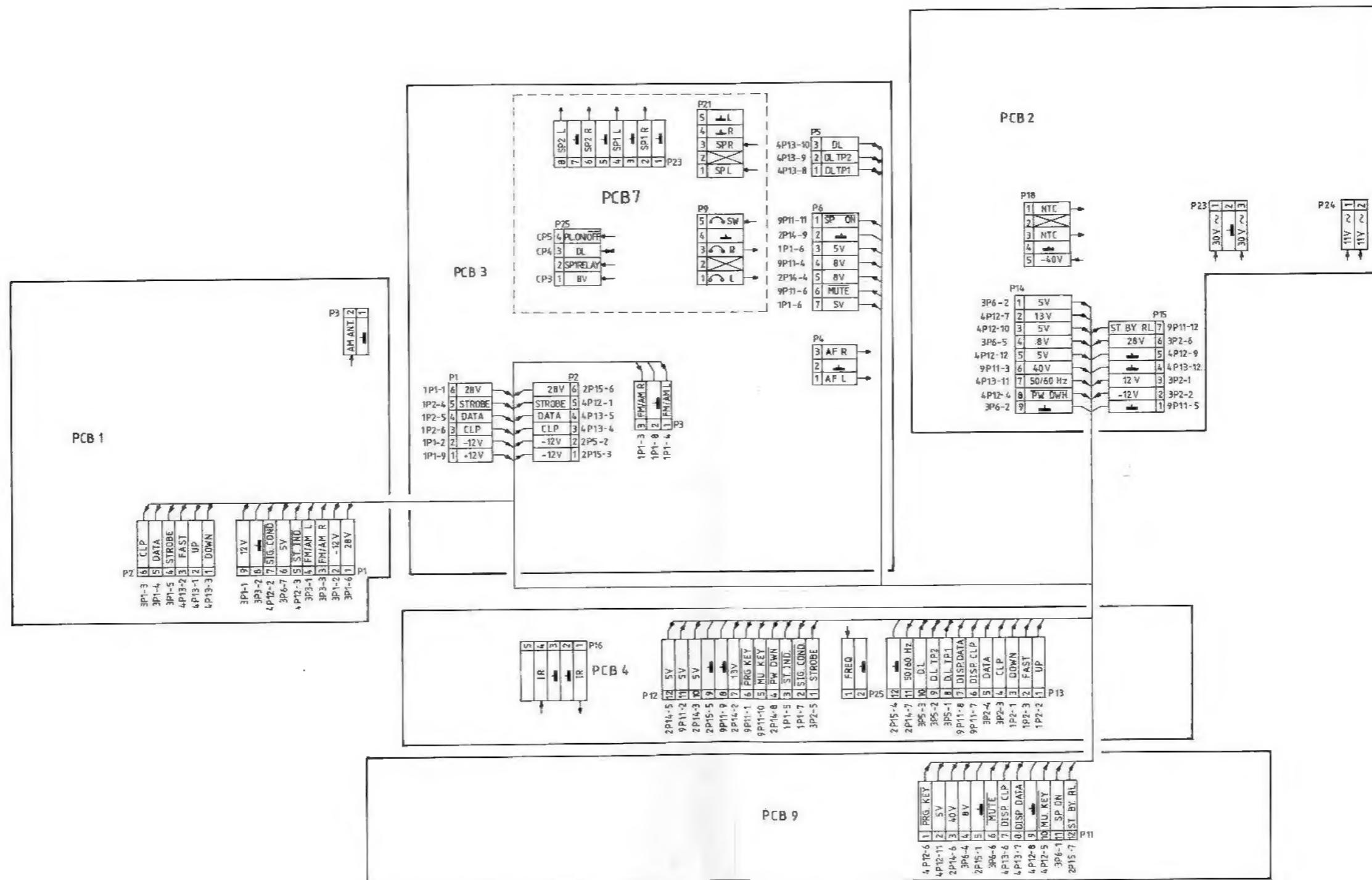


DIAGRAM A AM-FM, TUNER, IF, STEREO DECODER (Type 2338, 2339, 2340)

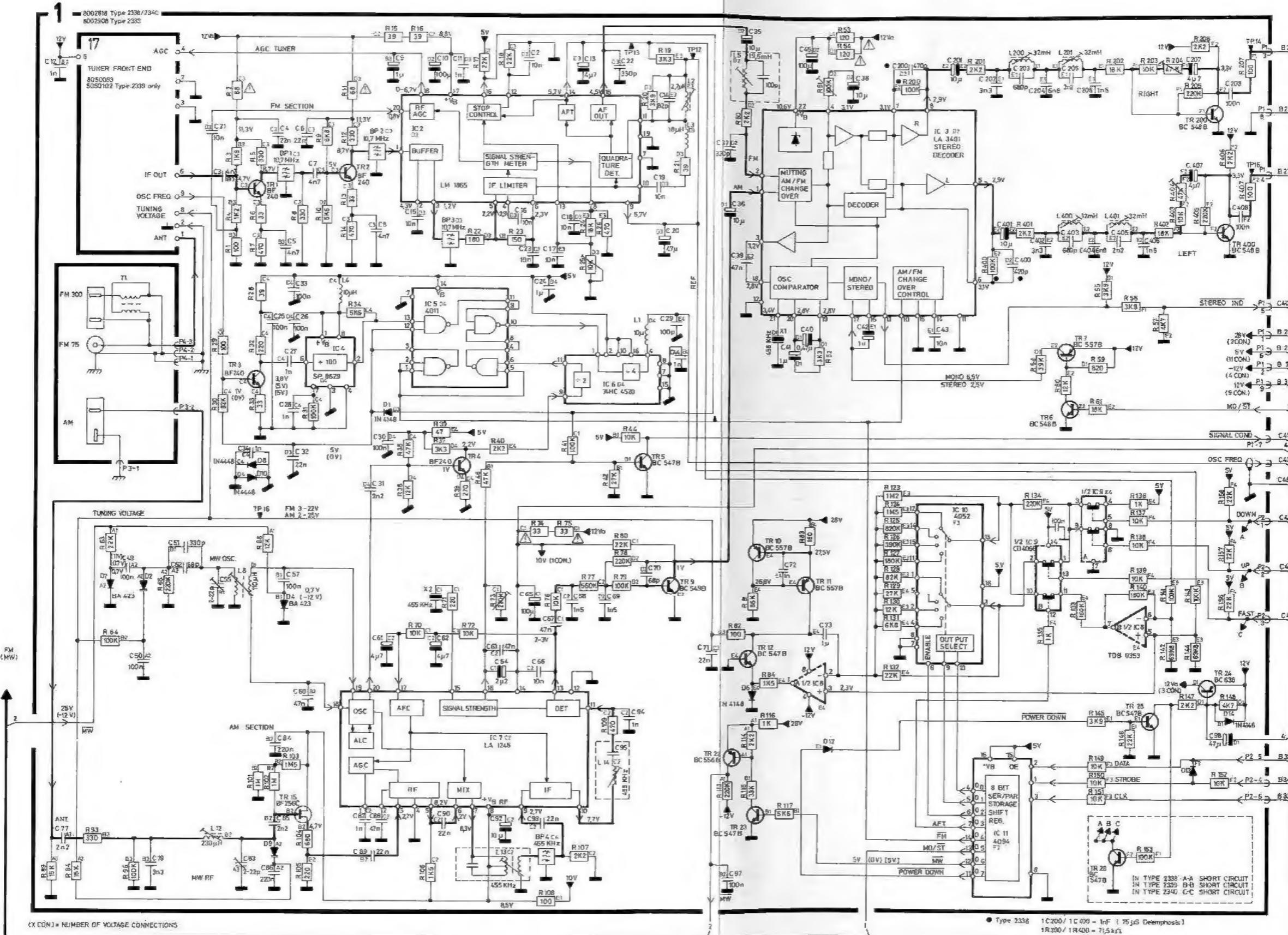


DIAGRAM A AM-FM, TUNER, IF, STEREO DECODER (Type 2336, 2337)

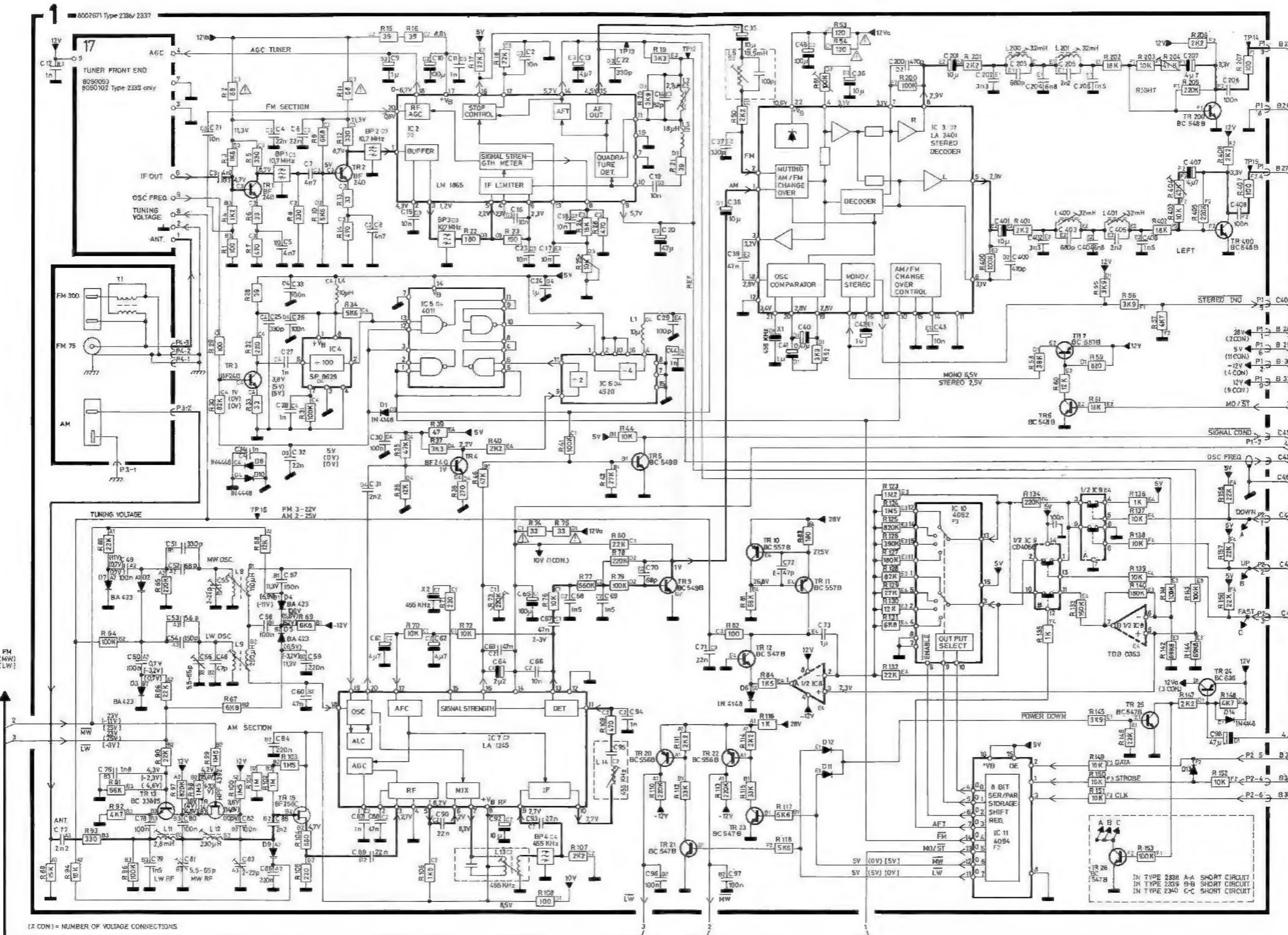


DIAGRAM B RIAA AMPL., INPUT SELECT, VOLUME AND TONE CONTROL, OUTPUT AMPL., POWER SUPPLY

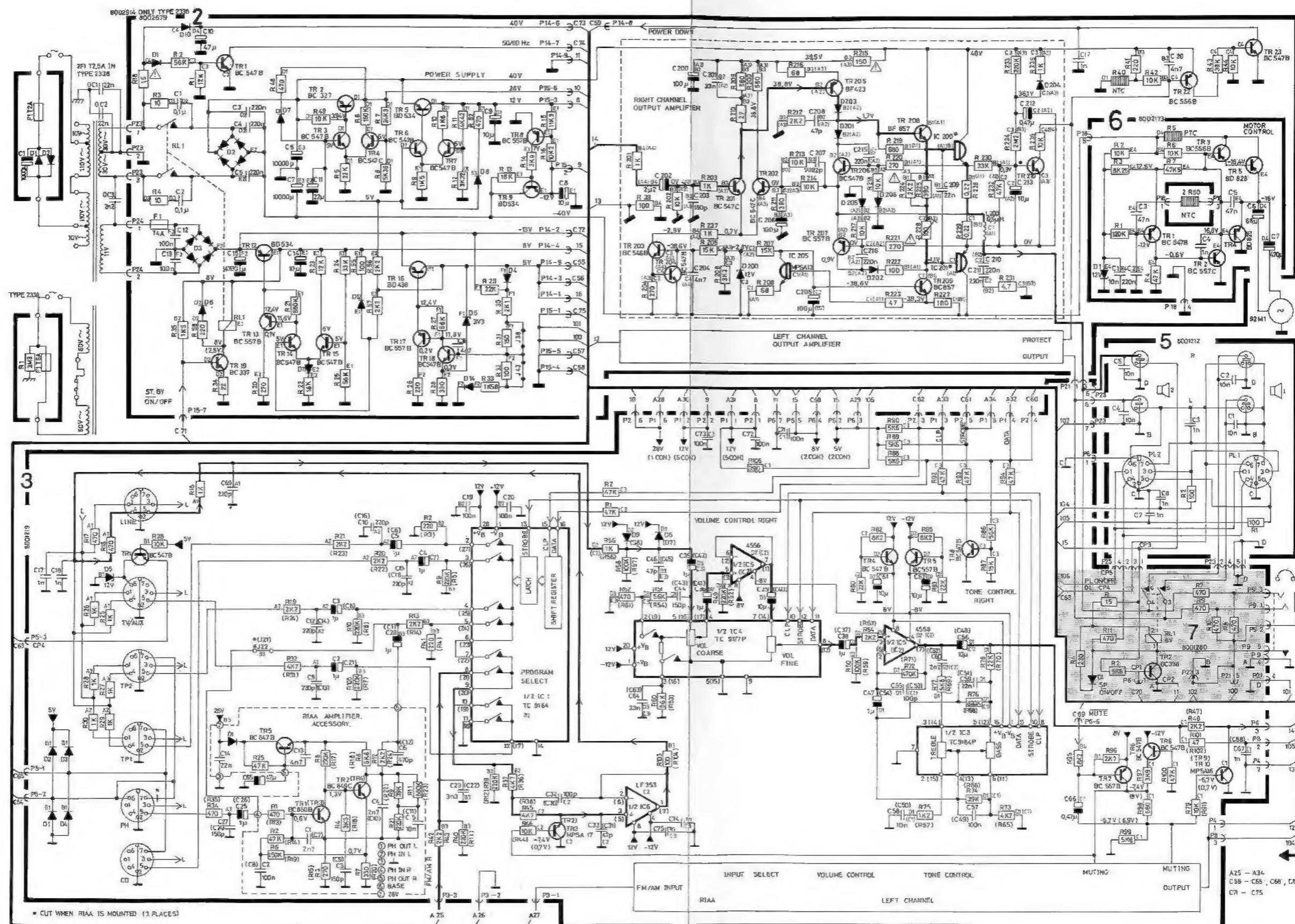


DIAGRAM C MICROCOMPUTER, IR TRANSCEIVER, DISPLAY

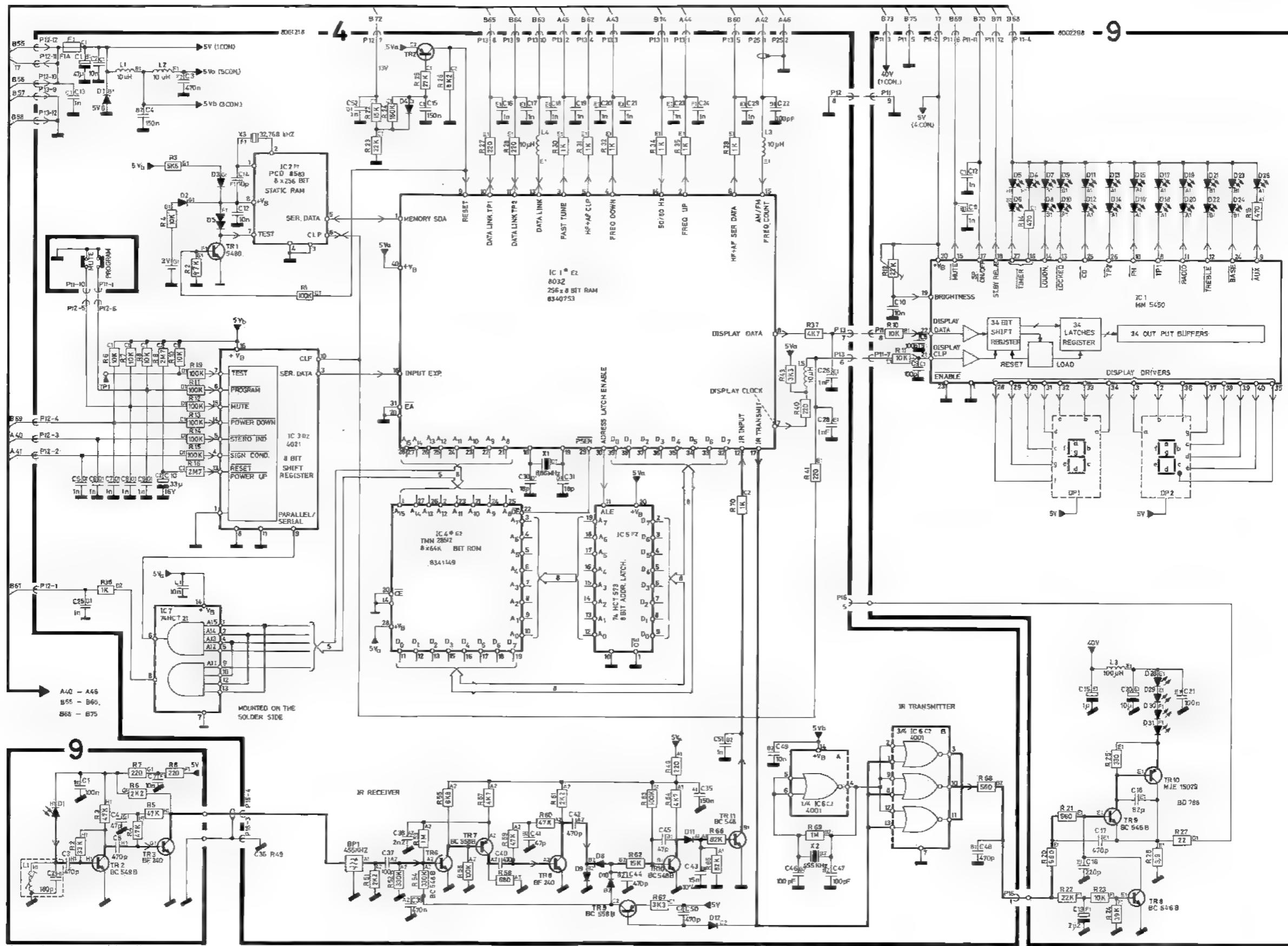
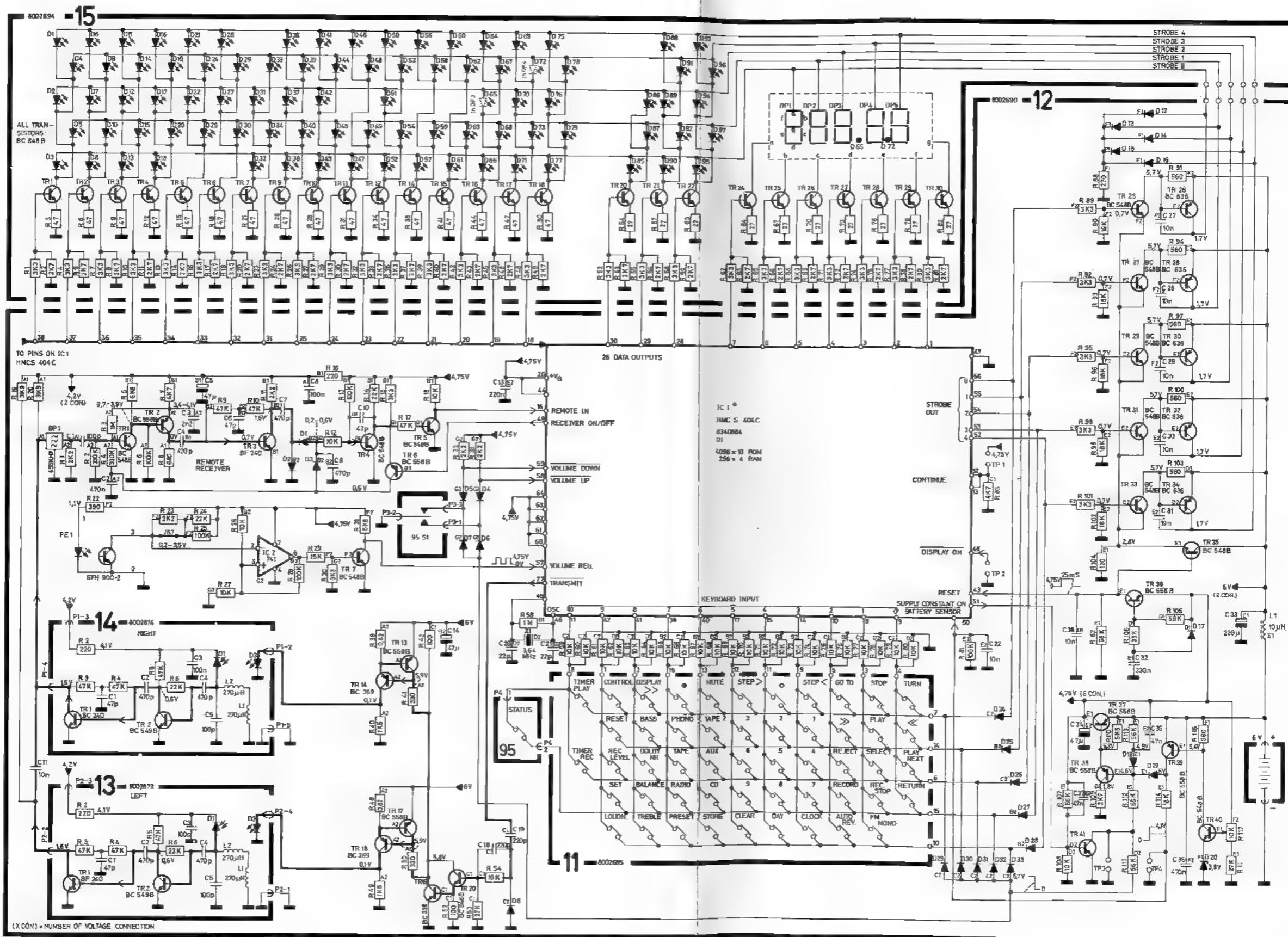
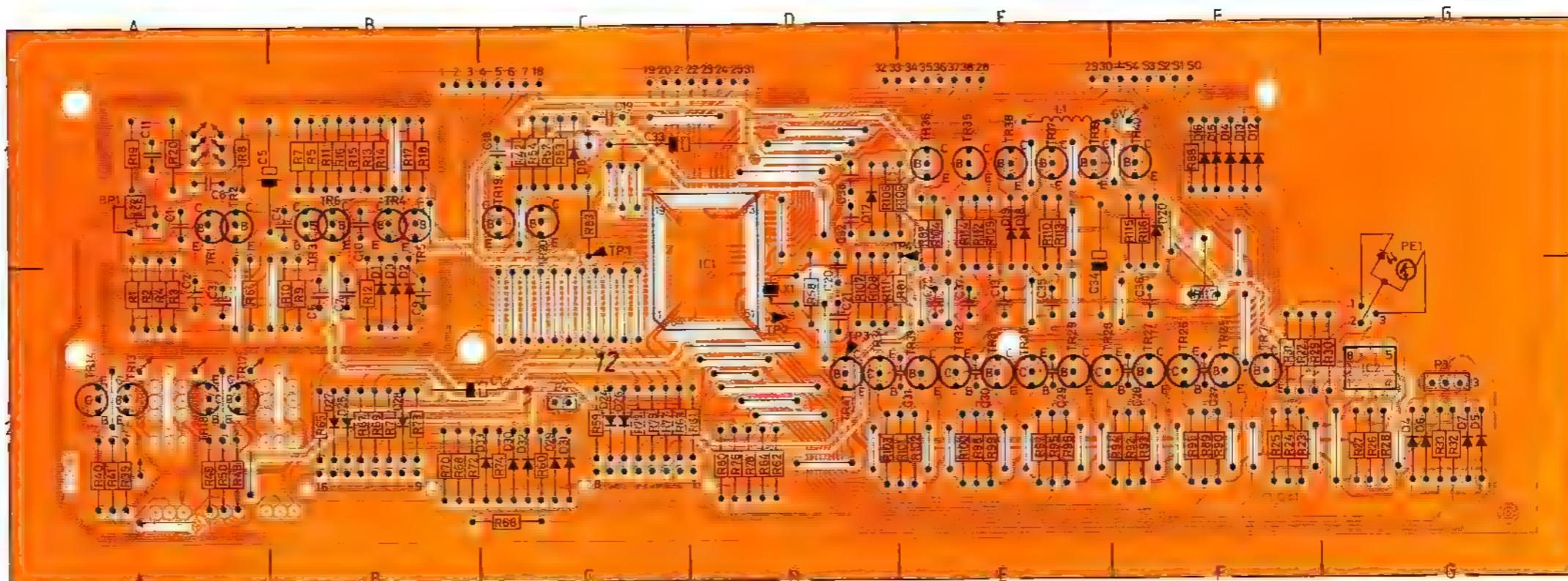


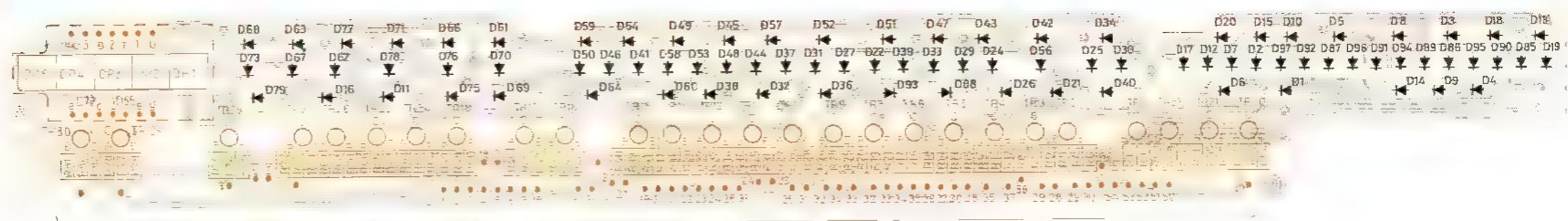
DIAGRAM D MASTER CONTROL PANEL, TYPE 1551



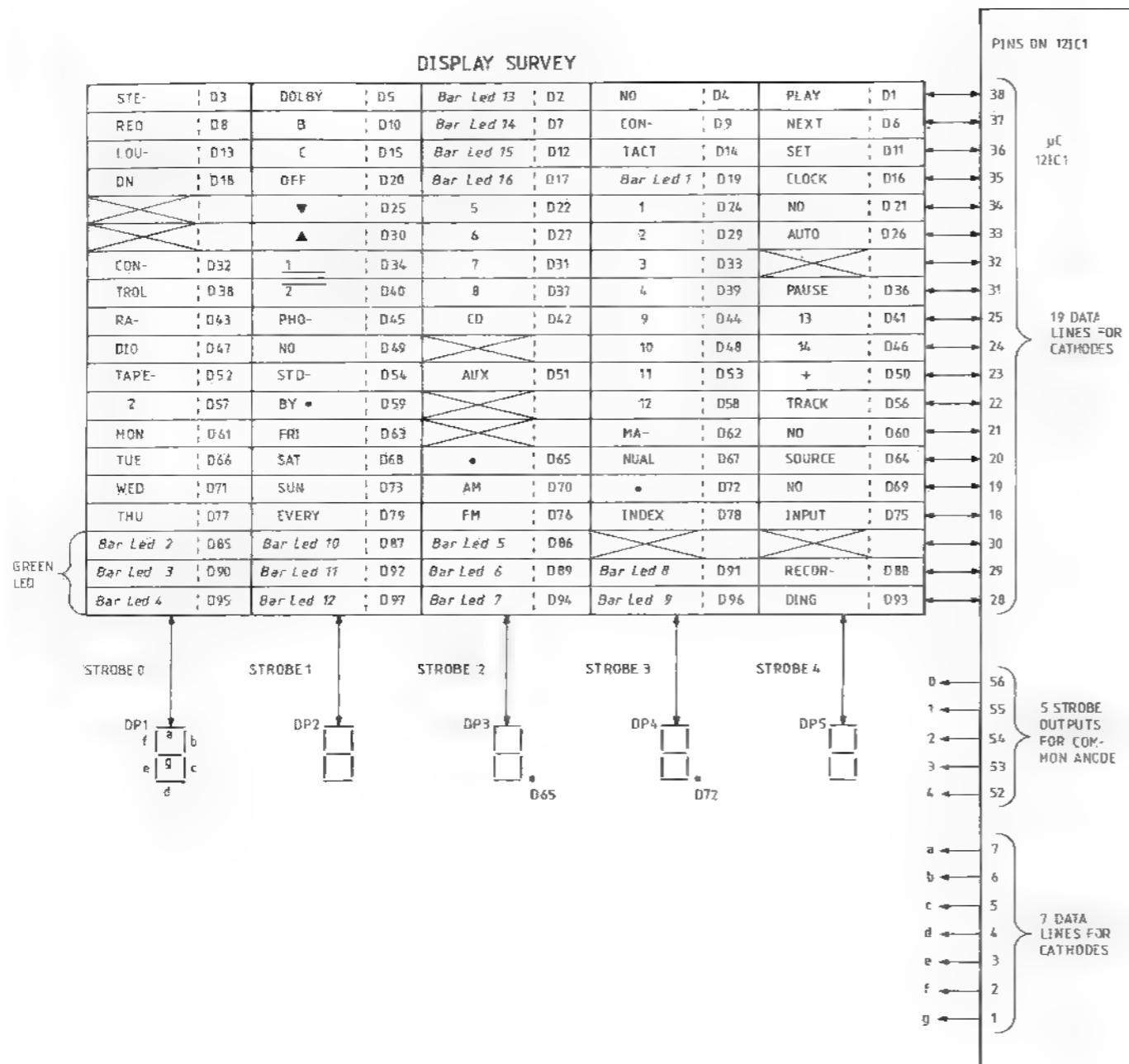
**Microcomputer
8002690 PCB 12**



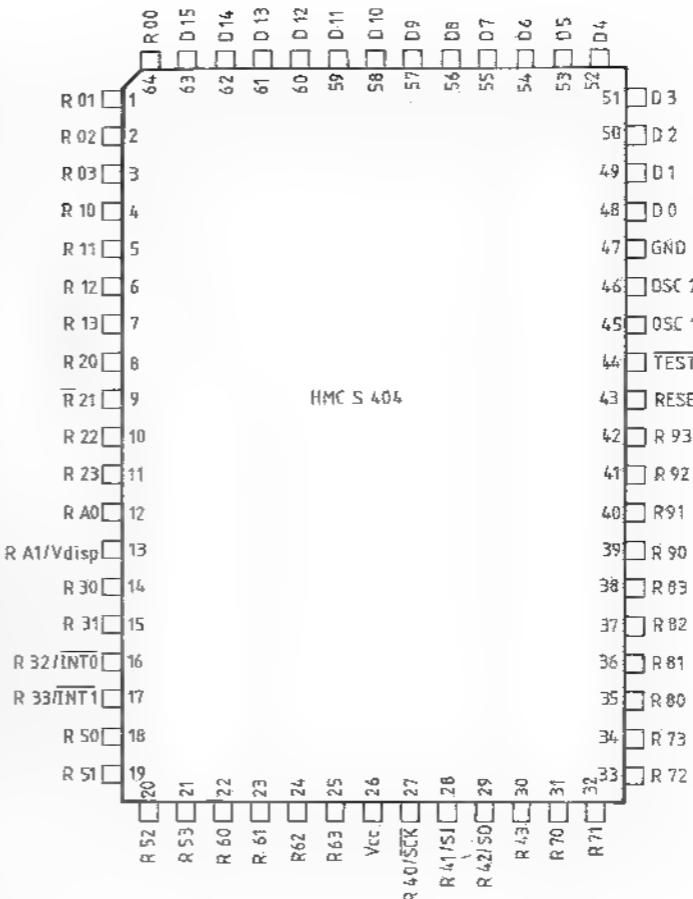
Display
8002694, PCB 15



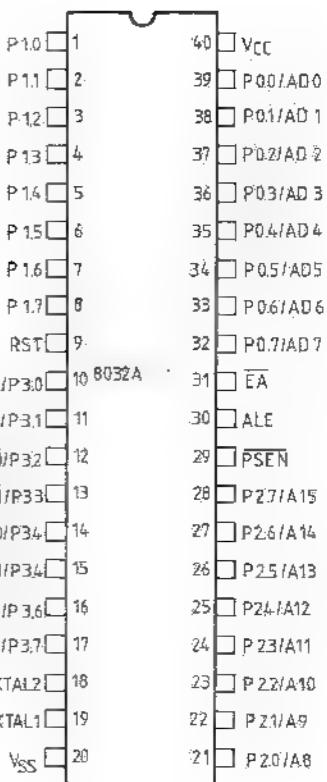
DISPLAY SURVEY FOR PCB 15 IN MASTER CONTROL PANEL



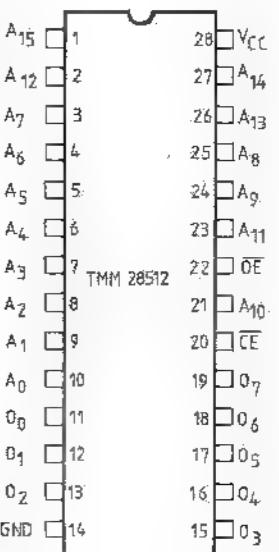
12IC



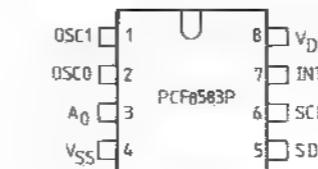
4IC1



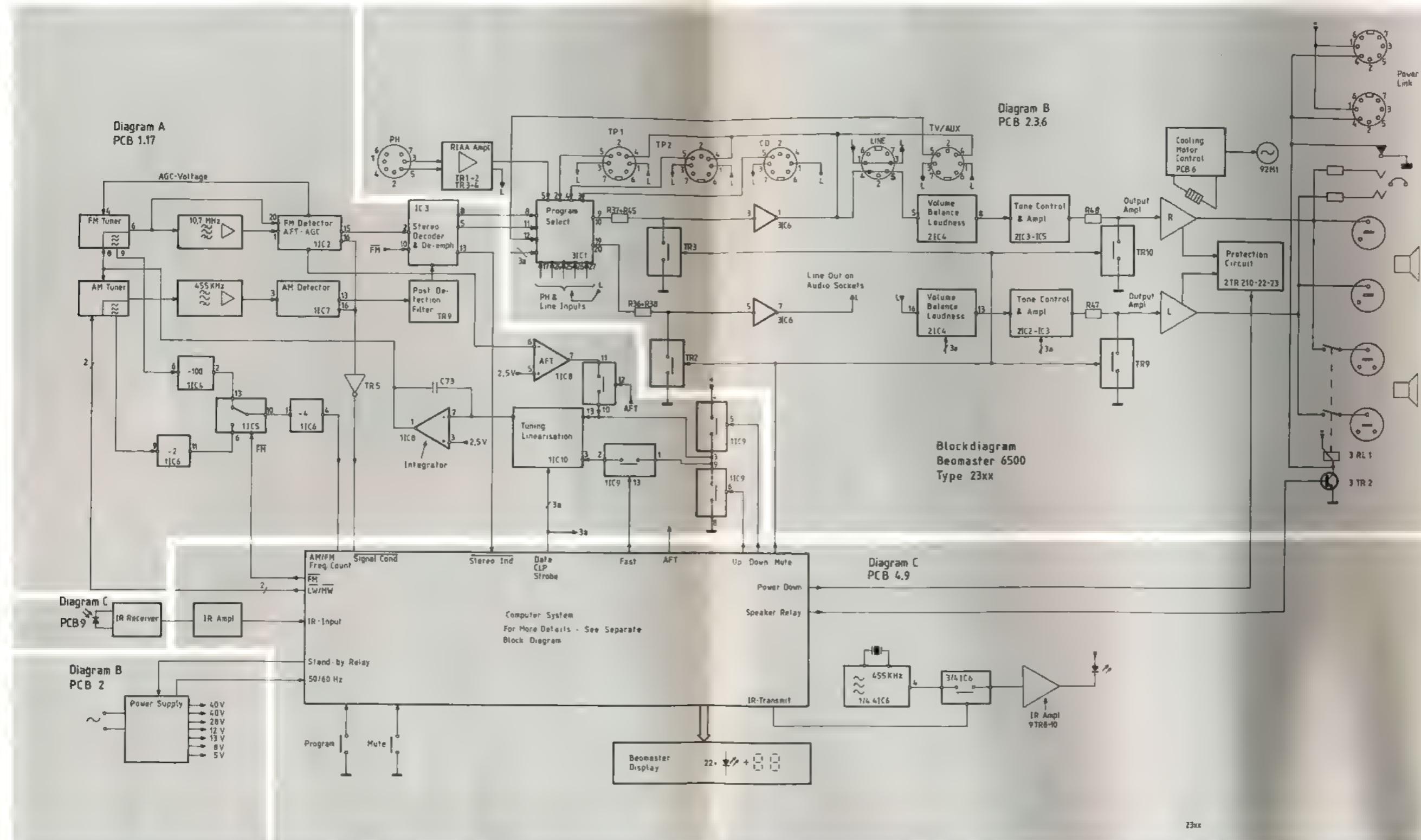
4ICA



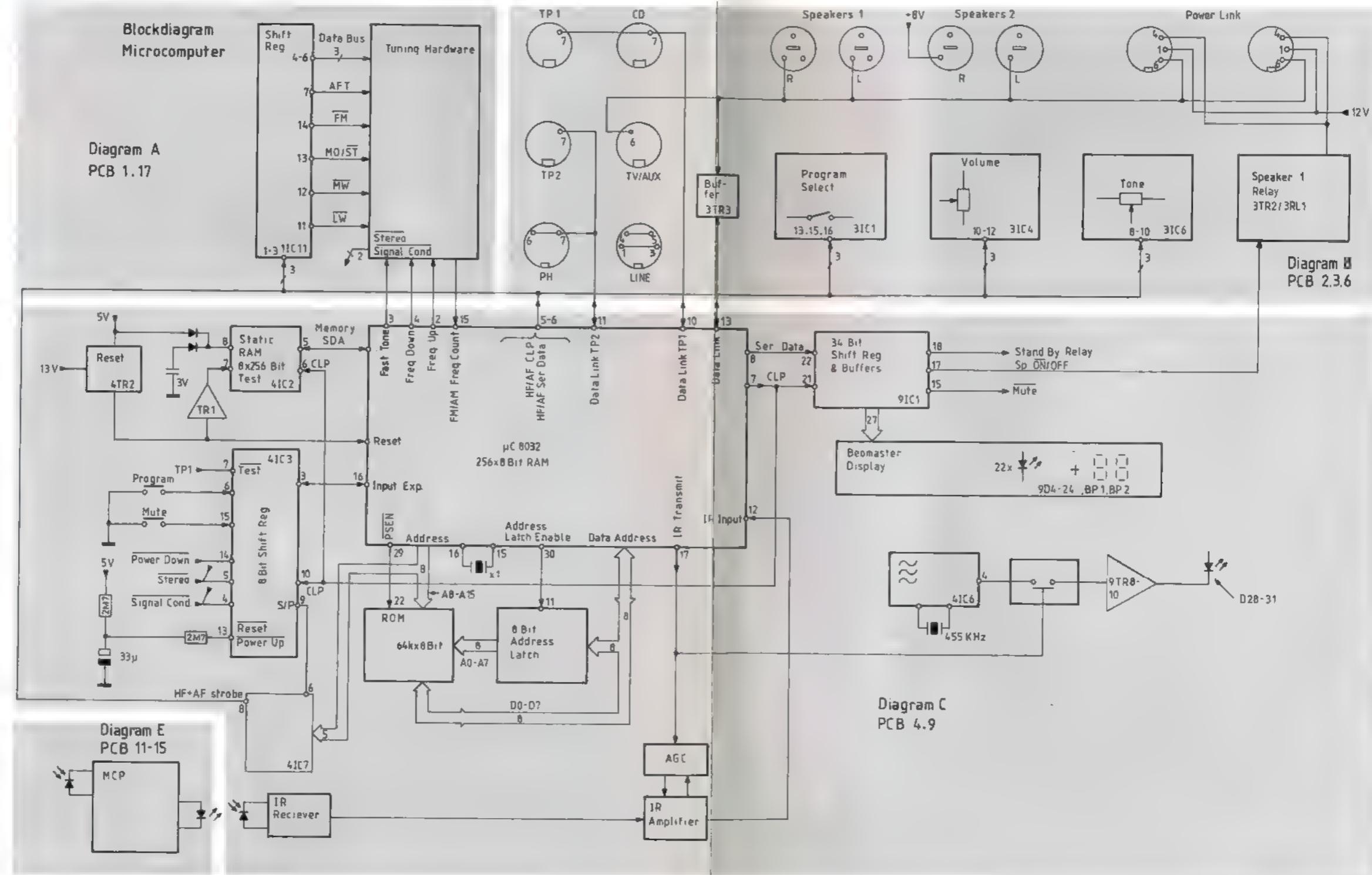
4IC



BLOCK DIAGRAM

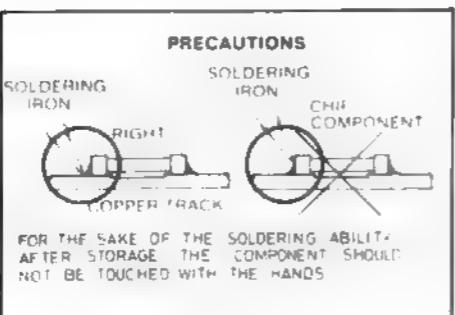
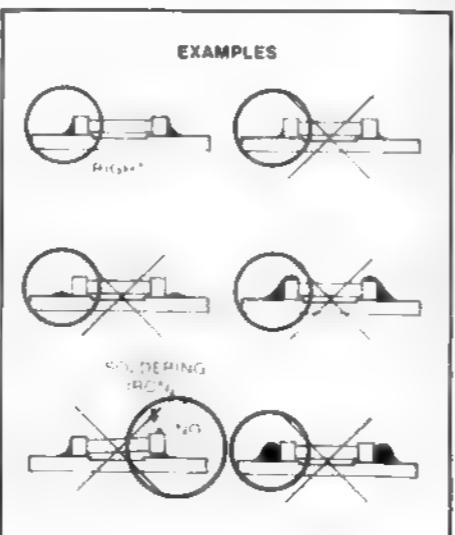
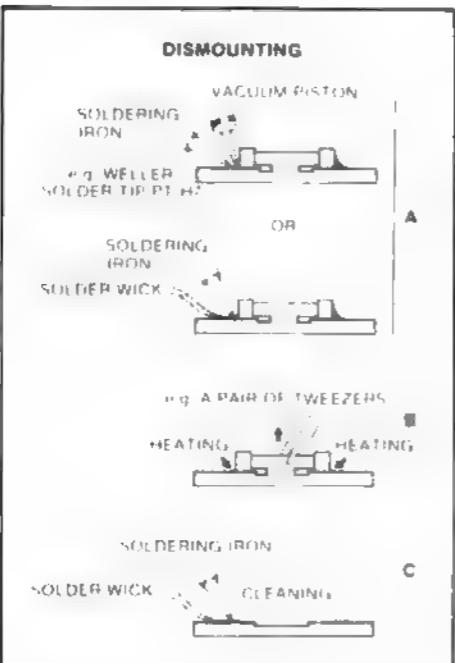
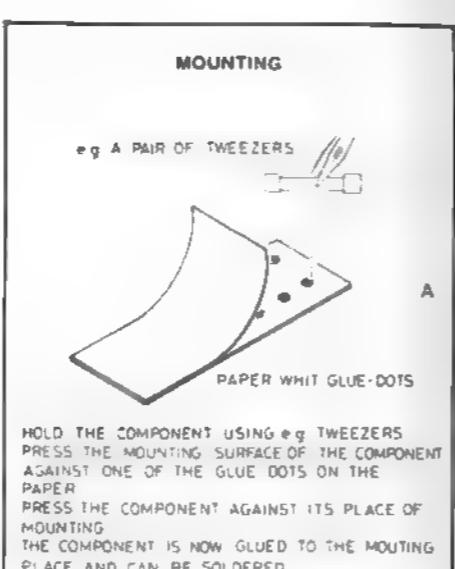
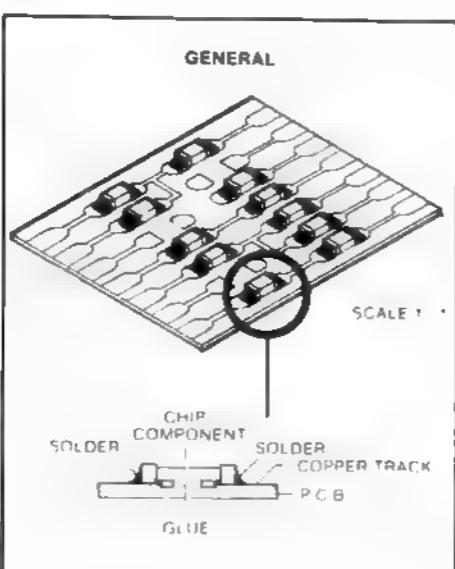


BLOCK DIAGRAM



LIST OF ELECTRICAL PARTS

In the player chip components have been applied. For insertion and removal of chip components see the figure below.



LIST OF ELECTRICAL PARTS

17	19	20	22	24	31	32	42
44	49	101	102	136	209	234	

Resistors not referred to are standard, see page 3-8

Δ indicates that static electricity may destroy the component.

* Specially selected or adapted sample.

PCB 1,
8002671 HF, type 2336, 2337
8002818 HF, type 2338, 2340
8002908 HF, type 2339

IC2	8340756	136	LM1865	IC7	8340757	136	LA1245
IC3	8340758	136	LA3401	IC8	8340763	136	LF353
IC4	8340492	102	SP8629	IC9Δ	8340202	102	4066
IC5Δ	8340245	102	4011	IC10Δ	8340602	101	4052
IC6Δ	8341102	101	74HC4520	IC11Δ	8340782	136	4094

TR1-	8320625	42	BF240	TR14Δ	8320396	24	MPF4392
TR4				TR15Δ	8320535	22	BF256C
TR5	8320497	20	BC547B	TR20	8320521	20	BC556B
TR6	8320509	20	BC548B	TR21	8320497	20	BC547B
TR7	8320503	20	BC557B	TR22	8320521	20	BC556B
TR9	8320627	20	BC549B	TR23	8320497	20	BC547B
TR10-	8320503	20	BC557B	TR24	8320640	17	BC636
TR11	8320497	20	BC547B	TR25	8320497	20	BC547B
TR12	8320497	20	BC547B	TR200	8320509	20	BC548B
TR13	8320512	20	BC338-25				

D1	8300058	209	1N4148	D8	8300212	209	75V 0,2A
D2	8300568	234	SVe333C	D9	8300568	234	SVe333C
D3-	8300385	209	BA423	D10	8300212	209	75V 0,2A
D5				D11-	8300058	209	1N4148
D6	8300058	209	1N4148	D14			
D7	8300385	209	BA423				

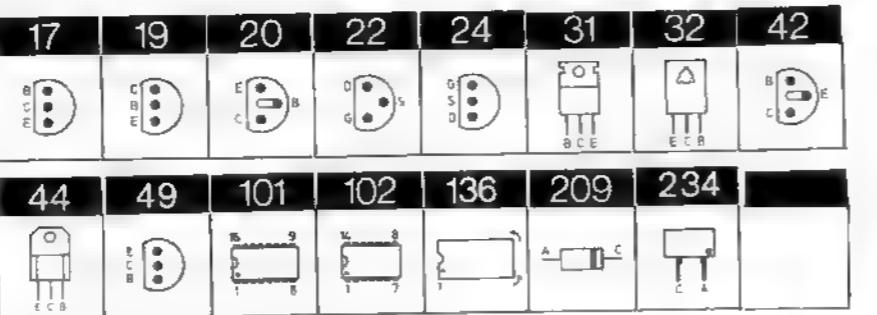
R25	5370326	10kΩ	20% 0,1W	R142	5020336	69,8kΩ	1% 1/4W
R51	5370128	100kΩ	20% 0,1W	R143	5020263	100kΩ	1% 1/4W
R73	5370330	220kΩ	20% 0,1W	R144	5020336	69,8kΩ	1% 1/4W
R141	5020263	100kΩ	1% 1/4W	R204	5370328	47kΩ	20% 0,1W

C2	4010106	10nF	-20+80% 40V	C30	4130230	100nF	20% 63V
C3	4010101	4,7nF	10% 63V	C31	4010103	2,2nF	10% 63V
C4	4010107	22nF	-20+80% 40V	C32	4010107	22nF	-20+80% 40V
C5	4010101	4,7nF	10% 63V	C33	4130179	100nF	20% 63V
C6	4010107	22nF	-20+80% 40V	C34	4010105	1nF	10% 63V
C7-	4010101	4,7nF	10% 63V	C35-	4200510	10μF	20% 16V
C8				C36			
C9	4200512	1μF	20% 50V	C37	4010118	330pF	10% 63V
C10	4200129	100pF	-20+50% 16V	C38	4200510	10μF	20% 16V
C11-	4010105	1nF	10% 63V	C39	4030023	47nF	-20+80% 16V
C12				C40	4200523	0,47μF	20% 50V
C13	4200515	4,7μF	20% 25V	C41-	4200512	1μF	20% 50V
C14	4000142	82pF	5% 63V	C42			
C15-	4010106	10nF	-20+80% 40V	C43	4010106	10nF	-20+80% 40V
C19				C44	4010105	1nF	10% 63V
C20	4200525	22μF	20% 10V	C45	4200129	100pF	-20+50% 16V
C21	4010106	10nF	-20+80% 40V	C48	4000137	47pF	5% 63V
C22	4010118	330pF	10% 63V	C49-	4130230	100nF	20% 63V
C23	4010106	10nF	-20+80% 40V	C50			
C24	4130070	1μF	10% 50V	C51	4100266	330pF	2,5% 63V
C25-	4130230	100nF	20% 63V	C52	4000150	68pF	5% 63V
C26				C53	4000155	56pF	5% 63V
C27-	4010105	1nF	10% 63V	C54	4100233	150pF	5% 63V
C28				C55	4340002	2-22pF	
C29	4000191	47pF	5% 63V	C56	4340003	5,5-65pF	

Bang & Olufsen

3-1

LIST OF ELECTRICAL PARTS



Resistors not referred to are standard, see page 3-8

Δ indicates that static electricity may destroy the component.

• Specially selected or adapted sample.

PCB 1,
8002671 HF, type 2336, 2337
8002818 HF, type 2338, 2340
8002908 HF, type 2339

IC2	8340756	136	LM1865	IC7	8340757	136	LA1245
IC3	8340758	136	LA3401	IC8	8340763	136	LF353
IC4	8340492	102	SP8629	IC9Δ	8340202	102	4066
IC5Δ	8340245	102	4011	IC10Δ	8340602	101	4052
IC6Δ	8341102	101	74HC4520	IC11Δ	8340782	136	4094

TR1-	8320625	42	BF240	TR14*Δ	8320396	24	MPF4392
TR4				TR15Δ	8320535	22	BF256C
TR5	8320497	20	BC547B	TR20	8320521	20	BC556B
TR6	8320509	20	BC548B	TR21	8320497	20	BC547B
TR7	8320503	20	BC557B	TR22	8320521	20	BC556B
TR9	8320627	20	BC549B	TR23	8320497	20	BC547B
TR10-	8320503	20	BC557B	TR24	8320640	17	BC636
TR11				TR25	8320497	20	BC547B
TR12	8320497	20	BC547B	TR200	8320509	20	BC548B
TR13	8320512	20	BC338-25				

D1	8300058	209	IN4148	D8	8300212	209	75V 0,2A
D2	8300568	234	SVc333C	D9	8300568	234	SVc333C
D3-	8300385	209	BA423	D10	8300212	209	75V 0,2A
D5				D11-	8300058	209	1N4148
D6	8300058	209	IN4148	D14			
D7	8300385	209	BA423				

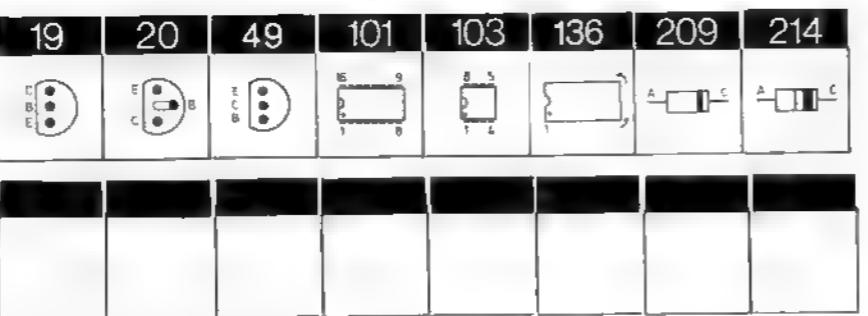
R25	5370326	10kΩ 20% 0,1W	R142	5020336	69,8kΩ 1% 1/4W
R51	5370128	100kΩ 20% 0,1W	R143	5020263	100kΩ 1% 1/4W
R73	5370330	220kΩ 20% 0,1W	R144	5020336	69,8kΩ 1% 1/4W
R141	5020263	100kΩ 1% 1/4W	R204	5370328	47kΩ 20% 0,1W

C2	4010106	10nF -20+80% 40V	C30	4130230	100nF 20% 63V
C3	4010101	4,7nF 10% 63V	C31	4010103	2,2nF 10% 63V
C4	4010107	22nF -20+80% 40V	C32	4010107	22nF -20+80% 40V
C5	4010101	4,7nF 10% 63V	C33	4130179	100nF 20% 63V
C6	4010107	22nF -20+80% 40V	C34	4010105	1nF 10% 63V
C7-	4010101	4,7nF 10% 63V	C35-	4200510	10μF 20% 16V
C8			C36		
C9	4200512	1μF 20% 50V	C37	4010118	330pF 10% 63V
C10	4200129	100μF -20+50% 16V	C38	4200510	10μF 20% 16V
C11-	4010105	1nF 10% 63V	C39	4030023	47nF -20+80% 16V
C12			C40	4200523	0,47μF 20% 50V
C13	4200515	4,7μF 20% 25V	C41-	4200512	1μF 20% 50V
C14	4000142	82pF 5% 63V	C42		
C15-	4010106	10nF -20+80% 40V	C43	4010106	10nF -20+80% 40V
C19			C44	4010105	1nF 10% 63V
C20	4200525	22pF 20% 10V	C45	4200129	100pF -20+50% 16V
C21	4010106	10nF -20+80% 40V	C48	4000137	47pF 5% 63V
C22	4010118	330pF 10% 63V	C49-	4130230	100nF 20% 63V
C23	4010106	10nF -20+80% 40V	C50		
C24	4130070	1μF 10% 50V	C51	4100266	330pF 2,5% 63V
C25-	4130230	100nF 20% 63V	C52	4000150	68pF 5% 63V
C26			C53	4000155	56pF 5% 63V
C27-	4010105	1nF 10% 63V	C54	4100233	150pF 5% 63V
C28			C55	4340002	2-22pF
C29	4000191	47pF 5% 63V	C56	4340003	5,5-65pF

Bang & Olufsen

C57-	4130230	100nF 20% 63V	C83	4340002	2-22pF
C58	4130233	220nF 20% 63V	C84	4130233	220nF 20% 63V
C59	4130235	47nF 20% 63V	C85	4010103	2,2nF 10% 63V
C60	4200515	4,7μF 20% 25V	C86	4130233	220nF 20% 63V
C61-			C87	4010105	1nF 10% 63V
C62			C88	4130235	47nF 20% 63V
C63	4130235	47nF 20% 63V	C89-	4010107	22nF -20+80% 40V
C64	4200517	2,2μF 20% 50V	C90		
C65	4200129	100μF -20+50% 16V	C91	4130230	100nF 20% 63V
C66	4010106	10nF -20+80% 40V	C92	4200510	10μF 20% 16V
C67	4130235	47nF 20% 63V	C93	4010107	22nF -20+80% 40V
C68-	4100210	1,5nF 5% 63V	C94	4010105	1nF 10% 63V
C69			C95-	4130230	100nF 20% 63V
C70	4000226	68pF 5% 63V	C97		
C71	4010107	22nF -20+80% 40V	C98	4200483	47μF 20% 16V
C72	4010106	10nF -20+80% 40V	C200	4100209	470pF 5% 63V
C73	4130390		C201	4200510	10μF 20% 16V
C76	4100247	1,8nF 5% 63V	C202	4100238	3,3nF 5% 63V
C77	4010103	2,2nF 10% 63V	C203	4100235	680pF 5% 63V
C78	4130230	100nF 20% 63V	C204	4100261	6,8nF 2,5% 63V
C79	4100210	1,5nF 5% 63V	C205	4100260	2,2nF 2,5% 63V
C80	4130230	100nF 20% 63V	C206	4100210	1,5nF 5% 63V
C81	4340003	5,5-65pF	C207	4200515	4,7μF 20% 25V
C82	4130230	100nF 20% 63V	C208	4130230	100nF 20% 63V

PCB 2, 8002679
8002914, type 2338
Output and Power supply



Resistors not referred to are standard, see page 3-8

△ indicates that static electricity may destroy the component.

* Specially selected or adapted sample.

D1	8300058	209	1N4148	D11-	8300058	209	1N4148
D2	8300487	-	KBU6D	D12			
D3	8300297	-	B80	D14	8300212	209	1N4448
			C3700/2200	D200	8300029	209	12V 5% 0.4W
D4	8300058	209	1N4148	D201-	8300058	209	1N4148
D5	8300541	209	3.3V 2% 0.4W	D203			
D6-	8300058	209	1N4148	D204	8300409	214	BAV20 150V
D8				D205-	8300058	209	1N4148
D10	8300023	209	1N4002 100V	D206			

R7	5020239	24.3kΩ	1% 1/4W	R41	5020782	365Ω	1% 1/4W
R8	5020219	5.36	1% 1/4W	R50	5220036	330kΩ	10% 1/2W
R11	5020770	4.42kΩ	1% 1/4W	R211	5010797	390Ω	2% 1/4W
R12	5020291	3.32	1% 1/4W	R214	5020110	10kΩ	1% 1/4W
R15	5020231	11.3kΩ	1% 1/4W	R215	5020633	150Ω	5% 0.35W
R16	5020335	10.2kΩ	1% 1/4W	R220-	5020658	270Ω	5% 0.3W
R18	5020881	22Ω	10% 0.25W	R221			
R30	5020200	2.1kΩ	1% 1/4W	R226	5370341	100Ω	20% 0.1W
R33	5020194	1.58kΩ	1% 1/4W	R228-	5102016	0.22Ω	10% 1W
R40	5220036	330kΩ	10% 1/2W	R229			

C3-	4130280	220nF	20% 100V	C201	4130257	33nF	20% 63V
C5				C202	4200517	2.2μF	20% 50V
C8-	4200510	10μF	20% 16V	C203	4000151	180pF	5% 63V
C9				C204	4010101	4.7nF	10% 63V
C10	4200688	47μF	20% 50V	C205-	4200511	100μF	20% 10V
C11	4200525	22μF	20% 10V	C206			
C12-	4130230	100nF	20% 63V	C207	4000136	22pF	5% 63V
C13				C208	4000343	47pF	2% 63V
C14	4200510	10μF	20% 16V	C209	4130262	22nF	20% 63V
C15	4200417	4700μF-10+50%	16V	C210-	4130233	220nF	20% 63V
C16	4010101	4.7nF	10% 63V	C211			
C17	4010105	1nF	10% 63V	C212	4200523	0.47μF	20% 50V
C20	4010101	4.7nF	10% 63V	C213	4200510	10μF	20% 16V
C200	4200368	100μF-10+100%	63V	C215-	4130233	220nF	20% 63V
				C216			

L200 6850114 Coil 0.5uH

P	7220580	Plug 2pol.	P18	7220160	Plug 5/4
P	7210510	Stikdåse minijack	P23	7220185	Plug 3/3
P14	7220431	Plug 9/9	P24	7220195	Plug 2/2
P15	7220429	Plug 7/7			

F 6600010 T4A-T/250V

RL6 7600046 Relay 6V

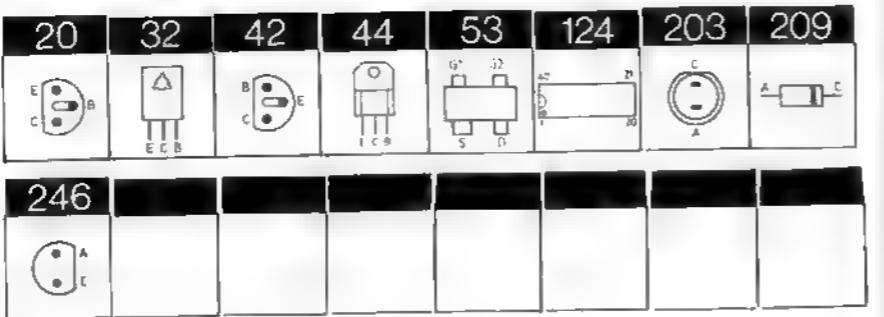
PCB 3, 8001219
Preamplifier

IC1Δ	8340759	136	TC9164	IC4Δ	8340760	136	TC9177
IC2	8340790	103	4558	IC5	8340790	103	4558
IC3Δ	8340761	136	TC9184	IC6Δ	8340763	136	LF353

TR1	8320497	20	BC547B	TR6	8320497	20	BC547B
TR2-	8320639	49	MPSA17	TR7	8320503	20	BC557B
TR3*				TR8	8320497	20	BC547B
TR4	8320497	20	BC547B	TR9-	8320525	19	MPSA16
TR5	8320503	20	BC557B	TR10			

D1-	8300058	209	1N4148	D6-	8300058	209	1N4148
D5	8300407	209	12V 2% 0.4W	D9			

C1-	4200512	1μF	20% 50V	C45-	4000193	47pF	5% 63V
C8				C46			
C9-	4010155	220pF	63V	C47	4200512	1μF	20% 50V
C16				C48	4200510	10μF	20% 16V
C17-	4010105	1nF	10% 63V	C49	4130306	100nF	10% 63V
C18				C50	4130268	10nF	5% 63V
C19-	4130306	100nF	10% 63V	C51	4130304	22nF	10% 63V
C20				C52	4100237	2.2nF	5% 63V
C21	4200512	1μF	20% 50V	C53	4000204	100pF	5% 63V
C22-	4010111	3.3nF	10% 63V	C54	4200512	1μF	20% 50V
C23				C55	4000204	100pF	5% 63V
C24	4000205	150pF	5% 63V	C56	4200510	10μF	20% 16V
C25-	4200517	2.2μF	20% 50V	C57	4130306	100nF	10% 63V
C26				C58	4130268	10nF	5% 63V
C27	4000205	150pF	5% 63V	C59	4130304	22nF	10% 63V
C28	4200512	1μF	20% 50V	C60	4100237	2.2nF	5% 63V
C30	4000243	100pF	5% 63V	C61-	4200510</		



Resistors not referred to are standard, see page 3-8

△ indicates that static electricity may destroy the component.

C1	4200364	47μF -10+50% 10V	C35	4130307	150pF 10% 63V
C2	4010106	10nF -20+80% 40V	C37	4000204	100pF 5% 63V
C3	4130313	470nF 20% 63V	C38	4010103	2,2nF 10% 63V
C4	4130307	150nF 10% 63V	C39	4130313	470nF 20% 63V
C5-	4010035	1μF 10% 63V	C40	4010128	470pF 10% 63V
C9			C41	4000193	47pF 5% 63V
C10	4200414	33pF -10+50% 16V	C42	4010128	470pF 10% 63V
C12	4010201	10nF -10+80% 40V	C43	4130315	15nF 5% 63V
C13	4010105	1nF 10% 63V	C44	4010128	470pF 10% 63V
C14	4000144	10pF 63V	C45	4000193	47pF 5% 63V
C15	4130307	150nF 10% 63V	C46-	4000204	100pF 5% 63V
C16-	4010035	1nF 10% 63V	C47		
C21			C48	4010128	470pF 10% 63V
C22	4000204	100pF 5% 63V	C49	4010106	10nF -20+80% 40V
C23-	4010035	1nF 10% 63V	C50	4010128	470pF 10% 63V
C26			C51	4010105	1nF 10% 63V
C28-	4010035	1nF 10% 63V	C52	4010035	1nF 10% 63V
C29					
C30-	4000136	22pF 5% 63V			
C31					

L1-	8020342	10uH	L3-	8020707	Coil 4.7uH 10%
L2			L4		
			L5	8020707	Coil 4.7uH 10%

F1 6604009 Sikr. 1A 250V

BPI 8030056 455kHz

P4	7200056	Socket 28pol.	P16	7220585	Plug 5pol.
P12-	7220554	Plug 12/12	P25	7220176	Plug 2/2
P13					

X1	8090104	Crystal 11,0592 mHz	X3	8090078	32,768kHz
X2	8030024	455kHz		8700027	Lithium battery

PCB 5, 8001212 Socket panel

C1-	4130214	10nF 20% 63V	C4-	4130214	10nF 20% 63V
C2			C5		
C3	4010027	1nF 10% 63V	C7-	4010027	1nF 10% 63V
			C8		

PCB 6, 8002173 Fan Regulation

TR1	8320497	20 BC547B	TR4-	8320542	44 BD825-16 45V
TR2	8320540	20 BC557C	TR5		
TR3	8320521	20 BC556B			

D1 8300029 209 12,0V 5% 0,4W

R3	5020565	8,25kΩ 1% 1/4W	R7	5020539	47,5kΩ 1% 1/4W
R5	5230012	15Ω 20% 1,8W			

C1	4010041	10nF -20+80% 40V	C5	4130235	47nF 20% 63V
C2	4130259	220nF 1% 160V	C6	4200542	68μF 20% 63V
C3	4130260	47nF 1% 160V	C7	4200102	470μF -10+100% 40V
C4	4010105	1nF 10% 63V			

PCB 7, 8001280 Relay

TR2 8320512 BC338-25

D1 8300058 209 1N4148

R7 5020455 470Ω 5% 1W R9 5020455 470Ω 5% 1W

P9 7220585 Plug 5pol. P23 7220319 Plug 8pol.
P21 7220206 Plug 5/4 P25 7220711 Plug 4pol.

RL1 7600073 Relay 6V

PCB 9, 8001284 Display

IC1△ 8340467 124 5450

TR2 8320627 20 BC549B TR9 8320514 20 BC546B
TR3 8320625 42 BF240 TR10 8320683 32 BD788 60V
TR8 8320776 BC546B

D4- 8330150 246 Led red D28- 8330227 203 IR Emitter
D25

R12 5370068 22kΩ 20% 0,1W

C1	4130230	100nF 20% 63V	C15	4200380	1μF -20+50% 63V
C3	4010128	470pF 10% 63V	C16	4010155	220pF 10% 63V
C4	4000193	47pF 5% 63V	C17	4010128	470pF 10% 63V
C5-	4010128	470pF 10% 63V	C18	4000142	82pF 5% 63V
C6	4010106	10nF -20+80% 40V	C19	4201035	2,2μF -10+50% 63V
C7	4000243	100pF 5% 63V	C20	4200342	10μF -10+50% 63V
C8			C21	4130230	100nF 20% 63V
C9			C23-	4010105	1nF 10% 63V
C10	4010189	10nF 30% 25V	C24		
C11-	4010105	1nF 10% 63V			
C12					

L1 8020562 Coil 455kHz L3 8020621 Coil 100uH

P 7220577 Plug 17pol. P11 7220548 Plug 12/12

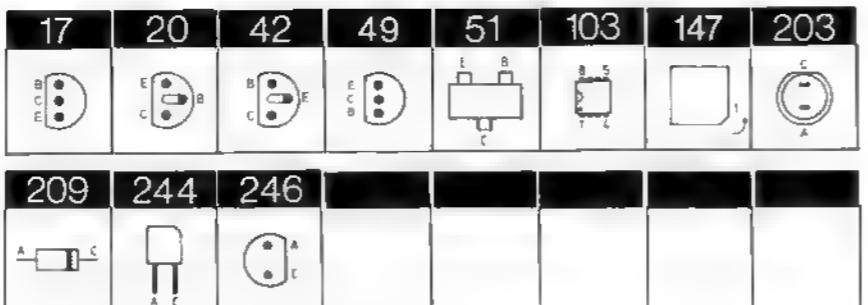
S1- 7400268 Omskifter 1pol S2

PCB 17, 8050093 8050102 type 2339 Tuner

TR1- 8320610 53 BF995 TR3- 8320672 53 BFS20
TR2

D1- 8300301 209 BB204 D4

R32- 5370253 47kΩ 20% 0,1W R34



Resistors not referred to are standard, see page 3-8

Δ indicates that static electricity may destroy the component.

* Specially selected or adapted sample.

C1	4000331	6,8pF 0,25pF 50V	C17-	4000260	5pF 0,5pF 50V
C2	4000257	27pF 5% 50V	C18		
C3-	4010132	1nF 10% 50V	C19-	4010132	1nF 10% 50V
C6			C20		
C7	4000257	27pF 5% 50V	C21	4000275	15pF 5% 50V
C8	4000332	8,2pF 0,5pF 50V	C22	4000228	12pF 5% 50V
C9	4000258	4pF 0,25pF 50V	C23	4010132	1nF 10% 50V
C10	4000330	5,6pF 0,5pF 50V	C24	4010157	10nF 10% 50V
C12	4010132	1nF 10% 50V	C25	4000294	0,5pF 0,25pF 50V
C13	4000231	68pF 5% 50V	C26	4200512	1pF 20% 50V
C14	4010157	10nF 10% 50V	C27-	4000321	220pF 5% 50V
C16	4000332	8,2pF 0,5pF 50V	C29		

L1	6850158	Coil 70nH	L6	8020632	Coil 0,68uH 20%
L2	6850157	Coil 115nH	L7	8020567	Coil 10,7mHz
L3	8020577	Coil 2,2uH 10%	L8	6850159	Coil 100nH
L4-	6850157	Coil 115nH			
L5					

P1	7220129	Plug 2/2	P3	7220210	Plug 4/4
P2	7220212	Plug 3/3			

PCB 12, 8002690
Microcomputer

IC1Δ	8340884	147	HMC S4040	IC2	8340141	103	LM 741
TR1	8320108	20	BC 548B	TR20-	8320108	20	BC 548B
TR2	8320104	20	BC 558B	TR25			
TR3	8320311	42	BF 240	TR26	8320640	49	BC 636
TR4-	8320108	20	BC 548B	TR27	8320108	20	BC 548B
TR5				TR28	8320640	49	BC 636
TR6	8320104	20	BC 558B	TR29	83202108	20	BC 548B
TR7	8320108	20	BC 548B	TR30	8320640	49	BC 636
TR11	8320104	20	BC 558B	TR31	8320108	20	BC 548B
TR12	8320450	17	BC 369	TR32	8320640	49	BC 636
TR13	8320104	20	BC 558B	TR33	8320108	20	BC 548B
TR14	8320450	17	BC 369	TR34	8320640	49	BC 636
TR15	8320104	20	BC 558B	TR35	8320108	20	BC 548B
TR16	8320450	17	BC 369	TR36-	8320104	20	BC 558B
TR17	8320104	20	BC 558B	TR39			
TR18	8320450	17	BC 369	TR40-	8320108	20	BC 548B
TR19	8320329	20	BC 338-25/18	TR41			

D1-	8300058	209	1N 4148	D4-	8300058	209	1N 4148
D19				D33			
D20	8300404	209	BZX79B 12				

R58	5020288	1 MO	1% 1/4W
R117	5370074	10 kΩ	20% 0.1W

C1	4003128	100 pF 5% 63V	C18-	4010088	220 pF 63V
C2	4130228	470 nF 20% 63V	C19		
C3	4010103	2.2 nF 10% 63V	C20-	4000136	22 pF 5% 63V
C4	4010024	470 pF 10% 63V	C21		
C5	4200634	47 pF -10+50% 10V	C22	4010041	10 nF -20+80% 40V
C6	4000057	47 pF 5% 63V	C27-	4010041	10 nF -20+80% 40V
C7	4010024	470 pF 10% 63V	C32		
C8	4130179	100 nF 20% 63V	C33	4200396	220 μF -20+50% 16V
C9	4010024	470 pF 10% 63V	C34	4200364	47 μF -10+50% 10V
C10	4000057	47 pF 5% 63V	C35	4130210	47 nF 20% 63V
C11	4010041	10 nF -20+80% 40V	C36	4130228	470 nF 20% 63V
C13	4130215	220 nF 20% 63V	C37	4130210	47 nF 20% 63V
C14	4200364	47 pF -10+50% 10V	C38	4010041	10 nF -20+80% 40V

L1 8020342 Coil 10 μH 10%

BP1 8030056 455 kHz ±1kHz

X1 8090057 Crystal 3.64 MHz

S1 7400268 Switch 1 pol.

TR1 8320311 42 BF 240 TR2 8320095 20 BC 549B

D1 8330145 244 BPW 82 D2- D3 8330140 203 TSHA 5502

C1	4000057	47 pF 5% 63V	C4	4010024	470 pF 10% 63V
C2	4010024	470 pF 10% 63V	C5	4000243	100 pF 5% 63V
C3	4130356	100 nF 20% 63V			

L1 8020590 Coil 270 μH 10% L2 8020590 Coil 270 μH 10%

P35 7220447 Plug 5/5 pins

14TR1 8320311 42 BF 240 14TR2 8320095 20 BC 549B

14D1	8330145	244 BPW 82	14D2- 14D3	8330140	203 TSHA 5502
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C1	4000057	47 pF 5% 63V	C4	4010024	470 pF 10% 63V
C2	4010024	470 pF 10% 63V	C5	4000243	100 pF 5% 63V
C3	4130356	100 nF 20% 63V			

L1 8020590 Coil 270 μH 10% L2 8020590 Coil 270 μH 10%

P36 7220447 Plug 5/5 pins

TR1 8320615 51 BC 848B TR30

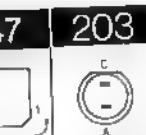
D1- D79	8330152	246 LED reed	DP1- DP5	8330131	HD 1075R/P 100PA
D85- D97	8330151	246 LED Green			

P1 7220581 Plug 7/7 pins P2 7220587 Plug 7/7 pins

PCB 15, 8002694 Display

PCB 13, 8002873
IR - Left

PCB 14, 8002874
IR - Right



7

203

0,5pF 50V
10% 50V
5% 50V
10% 50V
10% 50V
F 0,25pF 50V
20% 50V
pF 5% 50V

0,68uH 20%
10,7mHz
100nH

g 4/4

3 LM 741

BC 548B
BC 636
BC 548B
BC 558B

0 BC 548B

0 1N 4148

PCB 13, 8002873

IR - Left

C1	4003128	100 pF 5% 63V	C18	4010088	220 pF 63V
C2	4130228	470 nF 20% 63V	C19		
C3	4010103	2.2 nF 10% 63V	C20	4000136	22 pF 5% 63V
C4	4010024	470 pF 10% 63V	C21		
C5	4200634	47 pF -10+50% 10V	C22	4010041	10 nF -20+80% 40V
C6	4000057	47 pF 5% 63V	C27	4010041	10 nF -20+80% 40V
C7	4010024	470 pF 10% 63V	C32		
C8	4130179	100 nF 20% 63V	C33	4200396	220 pF -20+50% 16V
C9	4010024	470 pF 10% 63V	C34	4200364	47 pF -10+50% 10V
C10	4000057	47 pF 5% 63V	C35	4130210	47 nF 20% 63V
C11	4010041	10 nF -20+80% 40V	C36	4130228	470 nF 20% 63V
C13	4130215	220 nF 20% 63V	C37	4130210	47 nF 20% 63V
C14	4200364	47 pF -10+50% 10V	C38	4010041	10 nF -20+80% 40V
L1	8020342	Coil 10 pH 10%			
BP1	8030056	455 kHz ±1kHz			
X1	8090057	Crystal 3.64 MHz			
S1	7400268	Switch 1 pol.			
TR1	8320311	42 BF 240	TR2	8320095	20 BC 549B
D1	8330145	244 BPW 82	D2-D3	8330140	203 TSHA 5502
C1	4000057	47 pF 5% 63V	C4	4010024	470 pF 10% 63V
C2	4010024	470 pF 10% 63V	C5	4000243	100 pF 5% 63V
C3	4130356	100 nF 20% 63V			
L1	8020590	Coil 270 pH 10%	L2	8020590	Coil 270 pH 10%
P35	7220447	Plug 5/5 pins			

PCB 14, 8002874

IR - Right

14TR1	8320311	42 BF 240	14TR2	8320095	20 BC 549B
14D1	8330145	244 BPW 82	14D2-14D3	8330140	203 TSHA 5502
C1	4000057	47 pF 5% 63V	C4	4010024	470 pF 10% 63V
C2	4010024	470 pF 10% 63V	C5	4000243	100 pF 5% 63V
C3	4130356	100 nF 20% 63V			
L1	8020590	Coil 270 pH 10%	L2	8020590	Coil 270 pH 10%
P36	7220447	Plug 5/5 pins			

PCB 15, 8002694 Display

TR1	8320615	51 BC 848B	TR30		
D1-D79	8330152	246 LED reed	DP1-DP5	8330131	HD 1075R/P 100PA
D85-D97	8330151	246 LED Green			
P1	7220581	Plug 7/7 pins	P2	7220587	Plug 7/7 pins

Standard Resistors:
Resistors SMD 2% 1/8 W
SMD 5% 1/8 W

	5%	2%	2%	2%	2%	2%	2%	5%	5%
	x1	x10	x100	x1K	x10K	x100K	x1M	x10M	
1.0	5011623	5011647	5011218	5011227	5011241	5011256	5011267	5011730	
1.1	5011624	5011648	5011669	5011681	5011689	5011694	5011707		
1.2	5011625	5011649	5011219	5011682	5011490	5011257	5011708		
1.3	5011626	5011650	5011670	5011683	5011242	5011258	5011709		
1.5	5011627	5011651	5011220	5011228	5011243	5011259	5011710		
1.6	5011628	5011652	5011671	5011684	5011690	5011695	5011711		
1.8	5011629	5011653	5011672	5011229	5011244	5011260	5011712		
2.0	5011630	5011654	5011673	5011685	5011691	5011696	5011713		
2.2	5011216	5011655	5011674	5011230	5011245	5011261	5011714		
2.4	5011634	5011656	5011675	5011686	5011246	5011697	5011715		
2.7	5011635	5011657	5011497	5011231	5011247	5011262	5011716		
3.0	5011731	5011658	5011499	5011500	5011692	5011698	5011717		
3.3	5011217	5011659	5011676	5011232	5011248	5011263	5011718		
3.6	5011636	5011660	5011677	5011687	5011249	5011264	5011719		
3.9	5011637	5011661	5011221	5011233	5011491	5011699	5011720		
4.3	5011638	5011662	5011498	5011688	5011492	5011700	5011721		
4.7	5011639	5011269	5011222	5011234	5011250	5011265	5011722		
5.1	5011640	5011663	5011678	5011235	5011493	5011701	5011723		
5.6	5011641	5011664	5011223	5011236	5011251	5011702	5011724		
6.2	5011642	5011665	5011224	5011237	5011693	5011703	5011725		
6.8	5011643	5011666	5011225	5011238	5011252	5011704	5011726		
7.5	5011644	5011667	5011679	5011239	5011253	5011705	5011727		
8.2	5011645	5011270	5011226	5011240	5011254	5011266	5011728		
9.1	5011646	5011668	5011680	5011489	5011255	5011706	5011729		

(Glue dots, approx. 200, part no. 3181932).

Resistors 5% 1/2 W

	x1	x10	x100	x1K	x10K	x100K	x1M	x10M
1.0		5011000	5011013	5011028	5011044	5010313	5011069	5011083
1.2	5011406	5011001	5011014	5011030	5011045	5011058	5010421	
1.5	5010727	5011002	5011015	5011031	5011046	5011059	50	

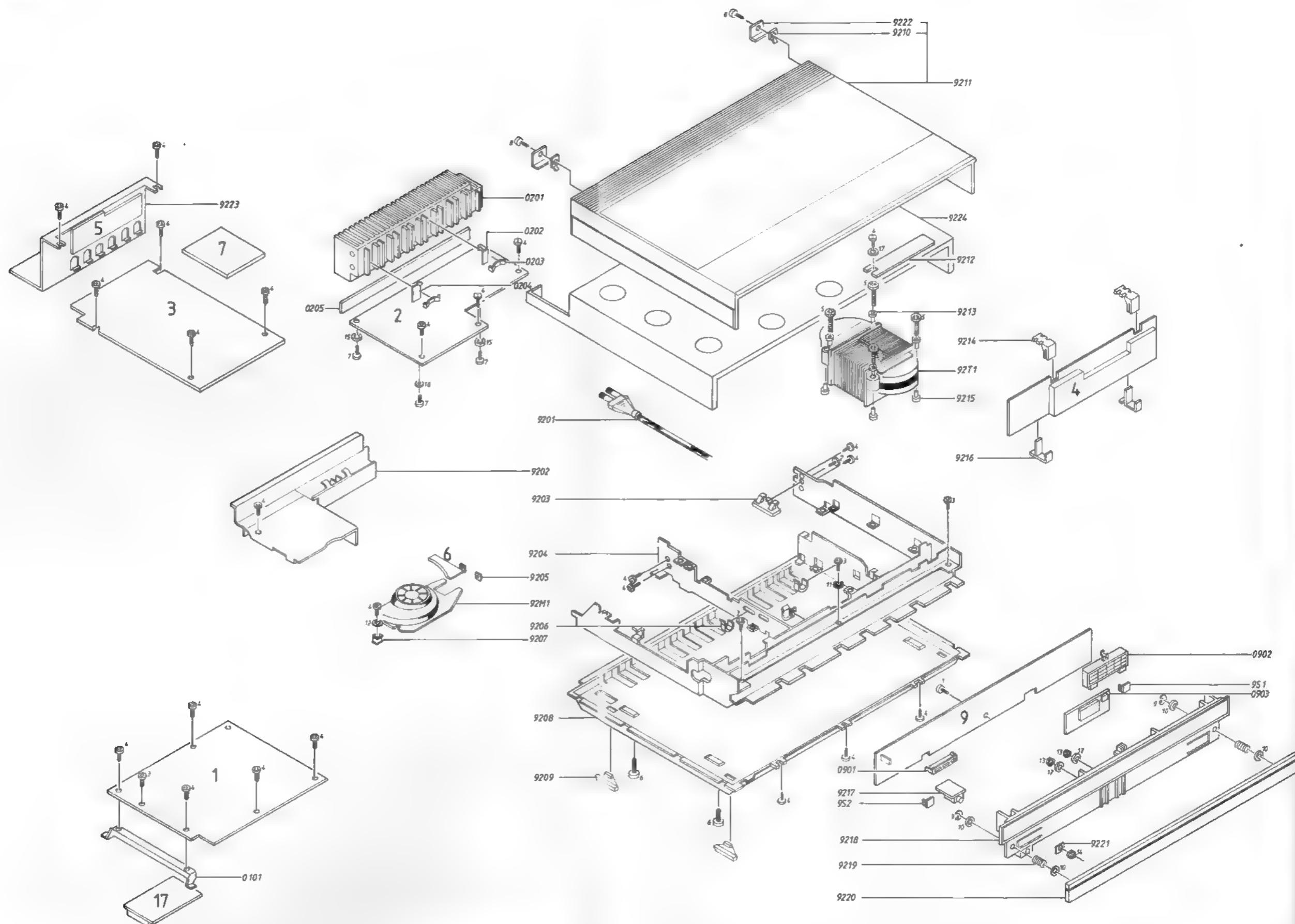
4-1

4-1

4-1

Bang & Olufsen

BEOMASTER 6500



5%

x10M

5011730

LIST OF MECHANICAL PARTS		01 modul	8002671	PCB HF, type 2336, 2337	
		0101	8002818	PCB HF, type 2338, 2340	
		0101	8002908	PCB HF, type 2339	
		0101	2566047	Rail	
<hr/>					
		02 modul	8002679	PCB Output and power supply	
		0201	2568679	Heatsink	
		0202	6141103	PC-Board	
		0203	2819175	Spring	
		0204	3170001	Mica sheet	
		0205	2560123	Rail	
<hr/>					
		03 modul	8001219	PCB Preamplifier	
			8001280	PCB Relay	
<hr/>					
		04 modul	8001218	Microcomputer	
			8001290	PCB with IC 74HCT21	
<hr/>					
		05 modul	8001212	Socket panel	
			7210518	Socket 8pol DIN	
			7210520	Socket HT 3pol	
			7210521	Socket HT 4pol	
			7210558	Socket AM	
			7210820	Socket FM	
<hr/>					
		06 modul	8002173	PCB Fan regulation	
<hr/>					
		09 modul	8001284	PCB Display	
		0901	3131252	Housing, display	
			3370155	Tape, display	
		0902	3131260	Housing, programme	
			3370156	Tape, programme	
		0903	8002683	PC-Board	
<hr/>					
		9S1-	7400268	Switch 1-pole	
		9S2			
<hr/>					
		17 modul	8050093	Tuner FM	
			8050102	Tuner FM, type 2339	
<hr/>					
		9201	6271101	Mains cable, type 2336, 2337	
			6270380	Mains cable, type 2338	
			6271119	Mains cable, type 2339	
			6270297	Mains cable, type 2340	
			9202	Housing for fan	
			9203	Cable holder	
			9204	Frame	
			9205	Bushing	
			9206	Cable holder	
			9207	Bushing	
			9208	Bottom	
			9209	Rubber foot	
			9210	Locking plate	
			9211	Cabinet	
			3430502	Cabinet, white	
<hr/>					
		9212	8002778	PCB mount, fuse type 2336, 2337,	
			8002814	2340	
			9213	PCB mount fuse, type 2338, 2339	
			9214	Bushing	
			9215	Holder	
			9216	2938154	
			9217	3152341	
			9218	3014060	
			9219	2938205	
			9220	3114316	
			9221	2812095	
			9222	2569178	
			9223	Rail	
			9224	2569202	
				Rail, white	
				2640050	
				Locking plate	
				3034073	
				Locking plate	
				8001212	
				Socket panel	
				3114356	
				Inner chassis	

92T1	8013354	Transformer, type 2336
	8013362	Transformer, type 2337
	8013363	Transformer, type 2338
	8013364	Transformer, type 2339
	8013365	Transformer, type 2340

92M1	8410011	Fan complete
	6276079	Main cable bundle

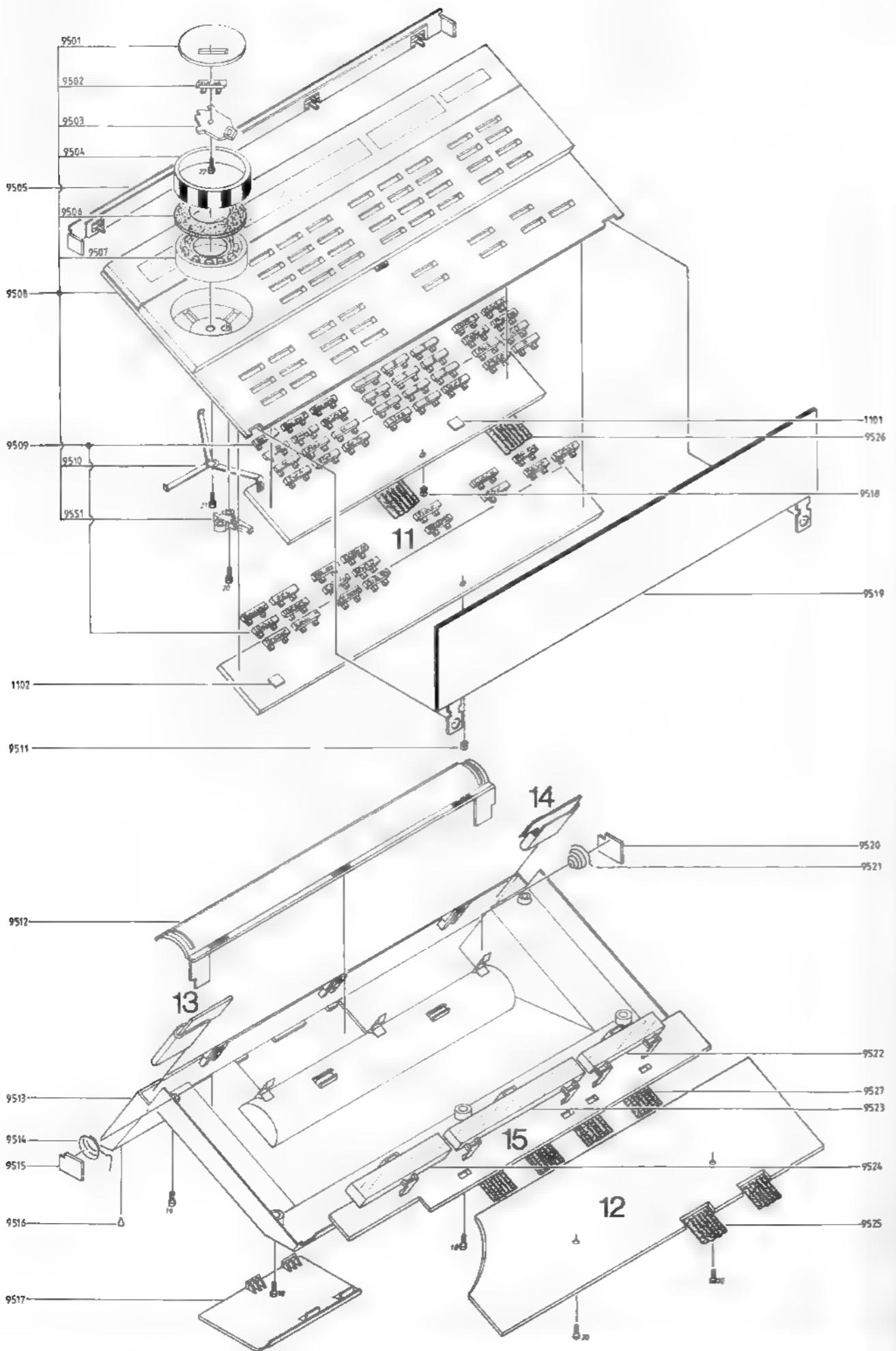
Survey of screws, washers etc.

1	2013118	Screw 3,0x8
2	2015094	Screw M3,5x6,5
3	2039008	Screw AM 3x6
4	2039020	Screw 3x5
5	2043003	Screw AM 4x25
6	2043020	Screw AM 4x6
7	2013089	Screw U2,9x7,9
8	2043011	Screw AM 4x8
9	2390001	Washer 2,3
10	2620020	Washer Ø3,2x7
11	2625002	Washer A3,2
12	2622015	Washer
		Ø3,2x8x0,5
13	2380011	Nut M3
14	2380145	Nut
15	2622052	Washer Ø3,2x8x1
16	2622014	Washer Ø3,2x6x1
17	2622041	Washer 3,2

Parts not shown

3397571	Foam packing set for Beomaster
3917098	Insert for Beomaster
3391251	Outer carton for Beomaster
3501073	Users Guide, Beosystem 6500 DK
3501074	Users Guide, Beosystem 6500 S
3501075	Users Guide, Beosystem 6500 SF
3501076	Users Guide, Beosystem 6500 GB
3501077	Users Guide, Beosystem 6500 D
3501078	Users Guide, Beosystem 6500 NL
3501079	Users Guide, Beosystem 6500 F
3501080	Users Guide, Beosystem 6500 E
3501081	Users Guide, Beosystem 6500 I
3502716	Setting up Guide, Beomaster 6500 DK
3502717	Setting up Guide, Beomaster 6500 S
3502718	Setting up Guide, Beomaster 6500 SF
3502719	Setting up Guide, Beomaster 6500 GB
3502720	Setting up Guide, Beomaster 6500 D
3502721	Setting up Guide, Beomaster 6500 NL
3502722	Setting up Guide, Beomaster 6500 F
3502723	Setting up Guide, Beomaster 6500 E
3502724	Setting up Guide, Beomaster 6500 I
3502725	Setting up Guide, Beomaster 6500 USA

M	x10M
054	5010638
665	
093	
791	
245	
431	
848	
714	
513	
6	


**Master Control Panel,
Type 1551**

11Modul	8002685	PCB Keyboard	9514	2818075	Spring
1101	7500211	Contact spring	9515	2805000	Screen
1102	7500211	Contact spring	9516	3010007	Rubber foot
			9517	3164839	Battery cover
			9518	3164772	Battery cover, white
12Modul	8002690	PCB Microcomputer	9519	2576050	Spacer
13Modul	8002873	PCB IR - left	9519	2569172	Cover
14Modul	8002874	PCB IR - right	9519	2569203	Cover, white
15Modul	8002694	PCB, display	9520	2805000	Screen
			9521	2818074	Spring
9501	2804068	Washer, volume	9522	3131253	Housing, display
	2804066	Washer, volume	9522	3131254	Housing, programme
	white		9523	3131255	Housing, volume
9502	2776036	Buttons, status	9524	3131256	Ribbon cable
9503	8002872	PC-Board with switch	9525	6200062	Ribbon cable
	7400336	Switch	9526	6200133	Ribbon cable
9504	2804053	Wheel	9527	6200128	Ribbon cable
9505	3322103	IR - window	9528	8700015	Battery
9506	2622405	Packing			
9507	2900013	Ball bearing			
9508	3168901	Panel complete			
	3168808	Panel complete, white			
	2776081	Set of buttons			
9510	2854125	Arm			
9511	2570050	Spacer			
9512	2952015	Holder			
9513	3454620	Bottom			
	3454580	Bottom, white			
95S1	7400356	Switch			
18	2039027	Screw 3x6			
19	2039084	Screw 3x8			
20	2013118	Screw PT 3x8			
21	2013080	Screw 2,9x9,5			
22	2013099	Screw 2,9x6,5			
	3391273	Outer carton for MCP			
	3397431	Foam packing set for MCP			
	3391687	Insert for MCP			
	3501082	Setting up Guide, MCP DK			
	3501083	Setting up Guide, MCP S			
	3501084	Setting up Guide, MCP SF			
	3501085	Setting up Guide, MCP GB			
	3501086	Setting up Guide, MCP D			
	3501087	Setting up Guide, MCP NL			
	3501088	Setting up Guide, MCP F			
	3501089	Setting up Guide, MCP E			
	3501090	Setting up Guide, MCP I			

**TILBEHØR
ACCESSORIES**
**Riaa modul
8001245**

TR1	8320768	51	BC850B	TR4	8320769	51	BC849C
TR2	8320769	51	BC849C	TR5	8320755	51	BC847B
TR3	8320768	51	BC850B				

D1 8300482 217 4148

C1	4010195	2,7nF 5% 50V	C8	4010220	100nF 10% 50V
C2	4010220	100nF 10% 50V	C9	4000319	150pF 5% 50V
C3	4000319	150pF 5% 50V	C10	4010167	2,7nF 10% 100V
C4	4010167	2,7nF 10% 100V	C11	4130220	10nF 5% 63V
C5	4130220	10nF 5% 63V	C12	4000286	470pF 5% 50V
C6	4000286	470pF 5% 50V	C13	4010173	4,7nF 10% 50V
C7	4010195	2,7nF 5% 50V	C14	4000290	22nF 10% 50V

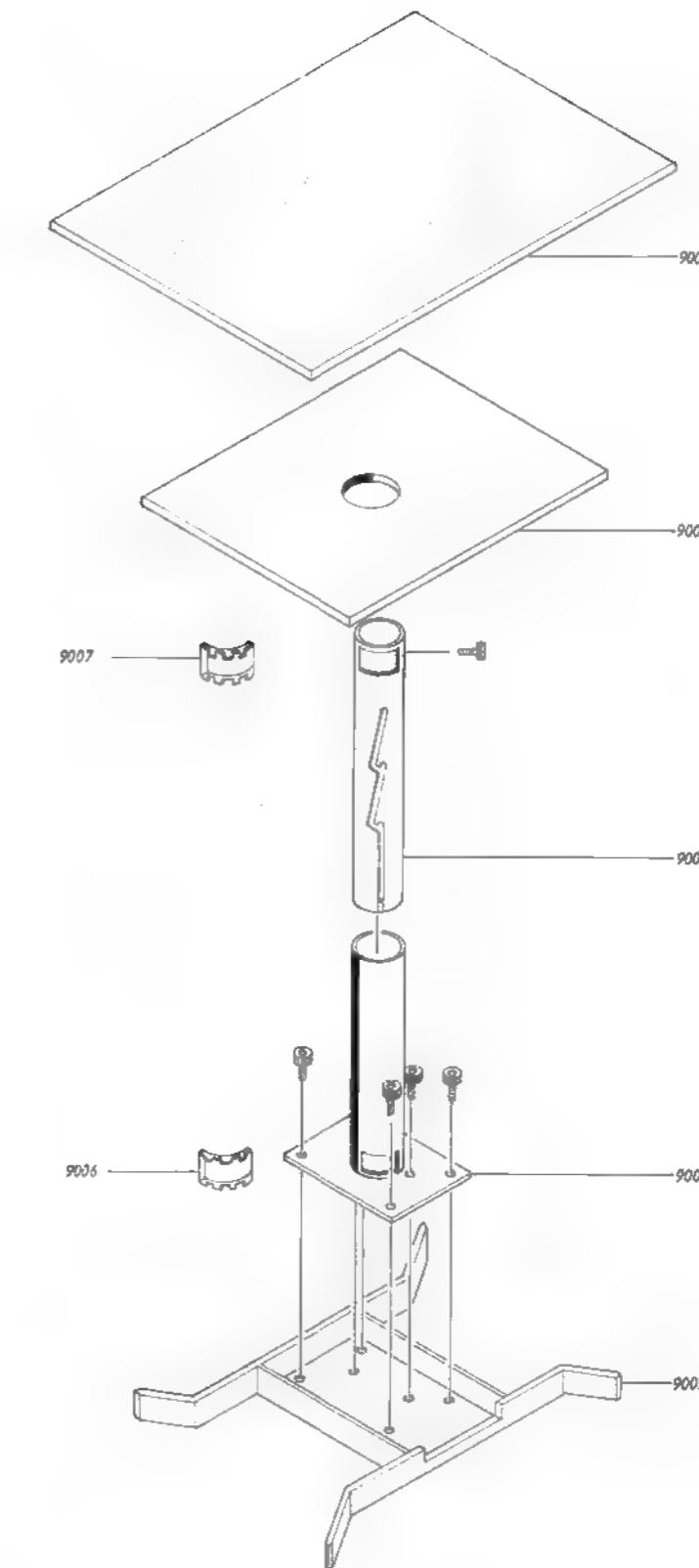
P1 7220883 Plug 7pol.

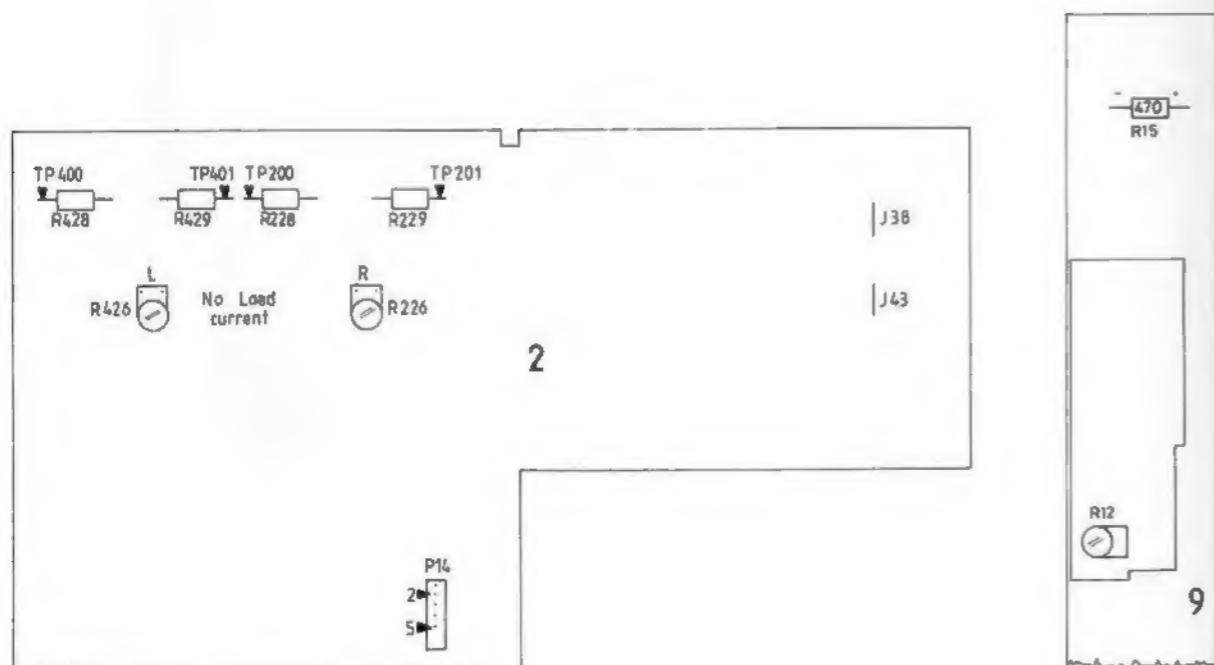
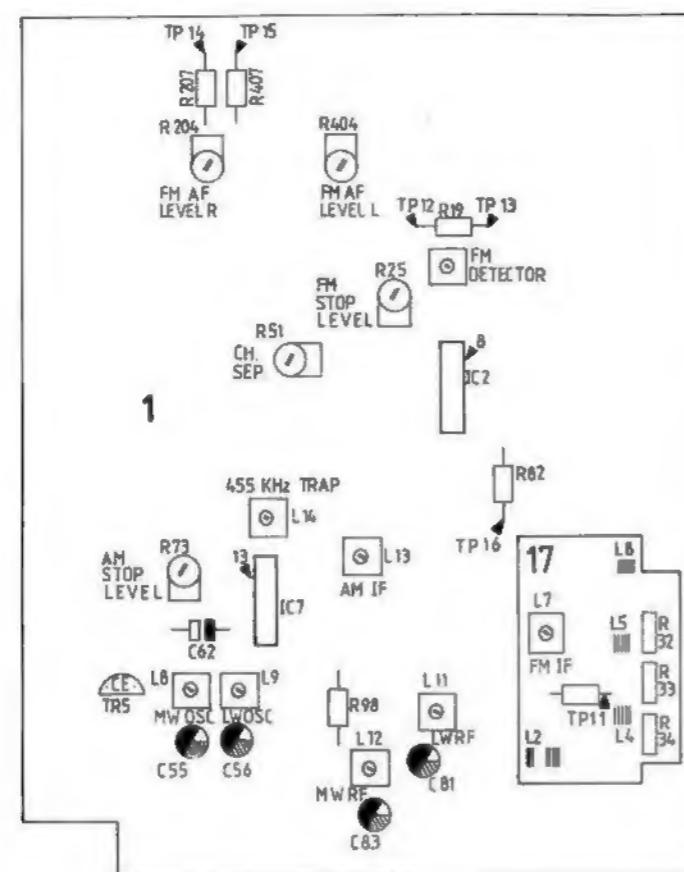
STAND 6500, type 2095

9001	3458744	Top
9002	3454672	Plate, bottom
9003	2570073	Tube
9004	2570074	Tube stand
9005	3454671	Foot
9006	2938275	Bushing
9007	2938275	Bushing

Parts not shown

3397709	Foam packing
3392135	Folie
3390419	Screws



**ELEKTRISKE JUSTERINGER**

Henvisningerne er for højre kanal. (Henvisningerne i parantes er for venstre kanal).
Alle betjeninger gøres på Master Control Panelet.

5V Netdel

Tilslut DC voltmeter til 2P14-5.
Juster til $5.1V \pm 0.1V$ ved at afbryde eller kortslutte 2J38 og 2J43.

Tomgangsstrom

Tomgangsstrommen justeres medens modtageren er kold og med neddrejet volumekontrol.
Højttalere må ikke være tilsluttet.
Tilslut DC voltmeter mellem 2TP200 og 2TP201 (2TP400 og 2TP401).
Juster 2R226 (2R426) til 11mV.

Brightness (Display)

Tilslut DC voltmeter over 9R15.
Tryk AUX.
Juster 9R12 til 3,75V.

Strømforsyning (MCP)

Kortslut 12TP3 til stel.
Tilslut et DC voltmeter til kollektor på 12TR37.
Juster 12R117 til 4,75V.

Volume sensor (MCP)

Tilslut DC voltmeter til ben 2 på 12IC2.
Når volume hjulet drejes skal spændingen svinge minimum mellem 2V og 2,8V.
Eventuel justering kan gøres ved at klippe eller lodde 12R23, 12R25 eller 12J57.

ELECTRICAL ADJUSTMENTS

Instructions apply to the right channel. (Instructions given in brackets apply to the left channel). All operations are carried out from the Master Control Panel.

5V Power-supply unit

Connect DC voltmeter to 2P14-5.
Adjust to $5.1V \pm 0.1V$ by disconnecting or short-circuiting 2J38 and 2J43.

No-load current

Adjust the no-load current while the receiver is cold and with the volume control turned down.
Speakers must not be connected.
Connect DC voltmeter between 2TP200 and 2TP201 (2TP400 and 2TP401).
Adjust 2R226 (2R426) to 11mV.

Brightness (Display)

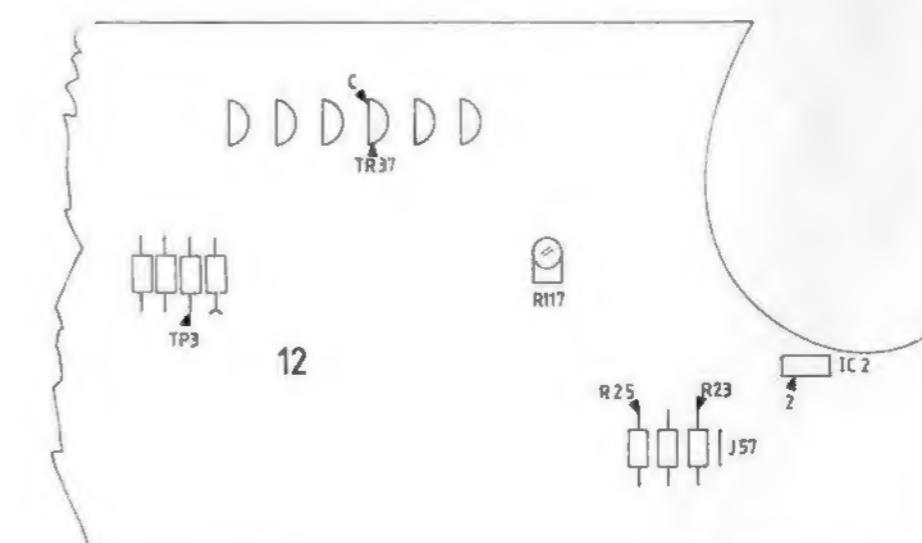
Connect DC voltmeter across 9R15.
Press AUX.
Adjust 9R12 to 3.75V.

Power supply (MCP)

Short-circuit 12TP3 with chassis.
Connect a DC voltmeter to the collector at 12TR37.
Adjust 12R117 to 4.75V.

Volume sensor (MCP)

Connect DC voltmeter to pin 2 at 12IC2.
When the volume wheel is turned, the voltage should oscillate between 2V and 2.8V as a minimum.
Any adjustments which might be necessary may be performed by cutting or soldering 12R23, 12R25 or 12J57.



ELEKTRISKE JUSTERINGER

Henvisningerne er for højre kanal. (Henvisningerne i parantes er for venstre kanal).
Alle betjeninger gøres på Master Control Panelet.

5V Netdel

Tilslut DC voltmeter til 2P14-5.
Juster til $5.1V \pm 0.1V$ ved at afbryde eller kortslutte 2J38 og 2J43.

Tomgangsstøm

Tomgangsstømmen justeres medens modtageren er køld og med neddrejet volumekontrol.
Højttalere må ikke være tilsluttet.
Tilslut DC voltmeter mellem 2TP200 og 2TP201 (2TP400 og 2TP401).
Juster 2R226 (2R426) til 11mV.

Brightness (Display)

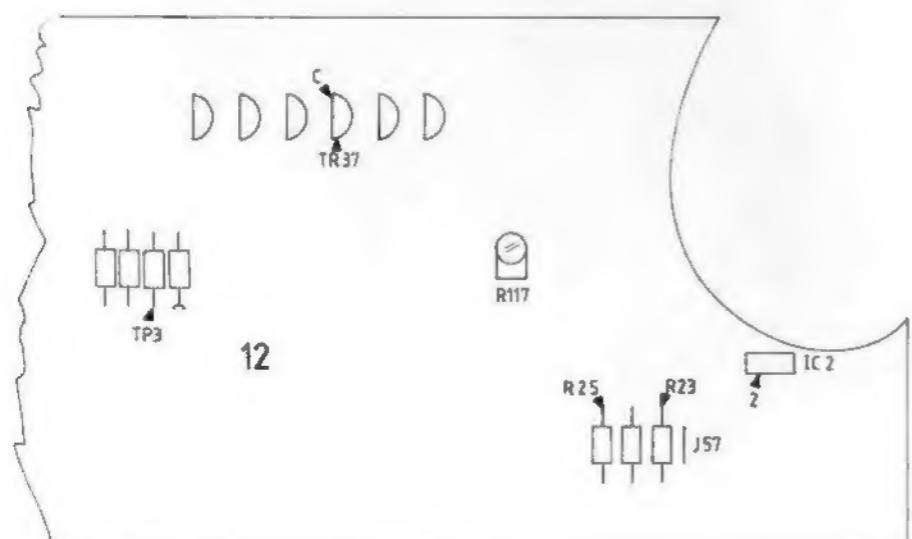
Tilslut DC voltmeter over 9R15.
Tryk AUX.
Juster 9R12 til 3,75V.

Stømforsyning (MCP)

Kortslut 12TP3 til stel.
Tilslut et DC voltmeter til kollektoren på 12TR37.
Juster 12R117 til 4,75V.

Volume sensor (MCP)

Tilslut DC voltmeter til ben 2 på 12IC2.
Når volume hjulet drejes skal spændingen svinge minimum mellem 2V og 2,8V.
Eventuel justering kan gøres ved at klippe eller lodde 12R23, 12R25 eller 12J57.

**ELECTRICAL ADJUSTMENTS**

Instructions apply to the right channel. (Instructions given in brackets apply to the left channel). All operations are carried out from the Master Control Panel.

5V Power-supply unit

Connect DC voltmeter to 2P14-5.
Adjust to $5.1V \pm 0.1V$ by disconnecting or short-circuiting 2J38 and 2J43.

No-load current

Adjust the no-load current while the receiver is cold and with the volume control turned down.
Speakers must not be connected.
Connect DC voltmeter between 2TP200 and 2TP201 (2TP400 and 2TP401).
Adjust 2R226 (2R426) to 11mV.

Brightness (Display)

Connect DC voltmeter across 9R15.
Press AUX.
Adjust 9R12 to 3.75V.

Power supply (MCP)

Short-circuit 12TP3 with chassis.
Connect a DC voltmeter to the collector at 12TR37.
Adjust 12R117 to 4.75V.

Volume sensor (MCP)

Connect DC voltmeter to pin 2 at 12IC2.
When the volume wheel is turned, the voltage should oscillate between 2V and 2.8V as a minimum.
Any adjustments which might be necessary may be performed by cutting or soldering 12R23, 12R25 or 12J57.

HF JUSTERINGER

Ved visse justeringer skal AFT'en være inaktiv. Dette ses ved at LOCKED indikatoren skal være slukket (LOCKED off). Ved justeringer uden AFT skal signalgeneratoren først tilsluttes, når modtagers frekvens er indstillet.

Alle betjeninger gøres på Master Control Panelet.

Udskiftning på FM tuner

Ved udskiftning af FM tuner er det kun nødvendigt at justere MF spolen 17L7.

MF

Tilslut et oscilloskop til 1IC2 ben 8.

Tryk RADIO.

Tryk GO TO.

Tryk TURN til displayet viser 874.

Tilslut en sweepgenerator til antenneindgangen og indstil den til 87,4 MHz.

Juster 17L7 til maksimum og symmetrisk MF kurve.

TUNER JUSTERINGER (KUN HVIS TUNEREN ER MISJUSTERET)**Oscillator**

Der skal ikke tilføjes signal.

Tilslut DC voltmeter mellem 17TP11 og ben 8 på tuneren.

Tryk RADIO.

Tryk GO TO.

Tryk TURN til displayet viser 874.

Juster 17L8 til 0V.

HF 87,4 MHz

Tilslut et oscilloskop til 1IC2 ben 8.

Tryk RADIO.

Tryk GO TO.

Tryk TURN til displayet viser 874.

Tilslut en sweepgenerator til antenneindgangen og indstil den til 87,4 MHz.

Juster 17L2, 17L4, 17L5 og 17L7 til maksimum og symmetrisk MF kurve.

HF 108 MHz

Tryk GO TO.

Tryk 1080.

Når displayet slukker, tryk GO TO (LOCKED off). Sweepgeneratorens frekvens ændres til 108 MHz.

Juster 17R32, 17R33 og 17R34 til maksimum.

Dektor

Tilslut oscilloskop til 1IC2 ben 8.

Tilslut DC voltmeter over 1R19 (1TP12 og 1TP13).

Tryk RADIO.

Tryk GO TO.

Tryk TURN til displayet viser 874.

Tryk GO TO.

Tryk 940.

Når displayet slukker, tryk GO TO (LOCKED off).

RF ADJUSTMENTS

The AFT needs to be inactive for certain adjustments. This is shown by the LOCKED indicator being off (LOCKED off). When adjustments are made without the AFT, the signal generator should not be connected until the frequency of the receiver has been set.

All operations are carried out from the Master Control Panel.

Replacement of FM tuner

When replacing an FM tuner, it is only necessary to adjust the IF coil 17L7.

IF

Connect an oscilloscope to 1IC2 pin 8.

Press RADIO.

Press GO TO.

Press TURN until the display shows 874.

Connect a sweep generator to the aerial input and adjust it to 87.4 MHz.

Adjust 17L7 to maximum and symmetrical IF curve.

TUNER ADJUSTMENT (ONLY IF TUNER IS MALADJUSTED)**Oscillator**

Do not input a signal.

Connect DC voltmeter between 17TP11 and the tuner's pin 8.

Press RADIO.

Press GO TO.

Press TURN until the display shows 874.

Adjust 17L8 to 0V.

RF 87.4 MHz

Connect an oscilloscope to 1IC2 pin 8.

Press RADIO.

Press GO TO.

Press TURN until the display shows 874.

Connect a sweep generator to the aerial input and adjust it to 87.4MHz.

Adjust 17L2, 17L4, 17L5 and 17L7 to maximum and symmetrical IF curve.

RF 108 MHz

Press GO TO.

Press 1080.

When the display goes off, press GO TO (LOCKED off).

Change sweep generator frequency to 108MHz.

Adjust 17R32, 17R33 and 17R34 to maximum.

Detector

Connect oscilloscope to 1IC2 pin 8.

Connect DC voltmeter across 1R19 (1TP12 and 1TP13).

Press RADIO.

Press GO TO.

Press TURN until the display shows 874.

Press GO TO.

Press 940.

When the display goes off, press GO TO (LOCKED off).

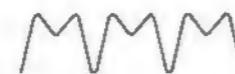
Tilslut en målesender til antennenindgangen og indstil den til 94 MHz.
Finindstil målesenderens frekvens til minimum 2. harmonisk forvrængning af signalet, som vist på kurven.

RIGTIG



CORRECT

FORKERT



INCORRECT

Juster 1L2 så tæt mod 0V DC som muligt.
NB! Spændingen over 1R19 vil hele tiden variere p.g.a. korrektionspulser fra mikrocomputeren.
Efter detektor justering indstil FM DISPLAY INDIKERING se afsnit 8.

FM LF output

Tilslut en målesender til antennenindgangen og indstil den til mono, 94MHz, 1mV EMF, $\Delta \pm 75$ kHz.
Tilslut LF voltmeter til 1TP14 (1TP15).
Tryk RADIO.
Tryk GO TO.
Tryk TURN til displayet viser 87,5.
Tryk GO TO.
Tryk 940.
Juster 1R204 (1R404) til 1V RMS.
(Type 2333 justeres til 700mV RMS).

Kanalseparation

Tilslut en stereokoder (Encoder) til antennenindgangen og indstil den til 94 MHz og umoduleret signal i den ene kanal.
Tilslut LF voltmeter til 1TP14 eller 1TP15 (den umodulerede kanal).
Tryk RADIO.
Tryk GO TO.
Tryk TURN til displayet vises 87,5.
Tryk GO TO.
Tryk 940.
Juster 1R51 til minimum signal i den umodulerede kanal.
Tilslut LF voltmeter til den anden kanal, og indstil stereokoderen til umoduleret signal i den samme kanal.
Kontroller, juster til symmetrisk kanalseparation.

FM stop niveau

Tilslut en målesender til antennenindgangen, og indstil den til 94MHz, 20 μ V EMF, $\Delta \pm 75$ kHz.
Tryk RADIO.
Tryk GO TO.
Tryk TURN til displayet visere 87,5.
Tryk GO TO.
Tryk 940.
Drej 1R25 mod uret til stop.
Drej 1R25 med uret til LOCKED indikatoren netop tænder.

Connect a signal generator to the aerial input and adjust it to 94MHz.
Fine-tune the signal generator to at least second harmonic distortion of the signal as indicated on the curve.

CORRECT

INCORRECT

Adjust 1L2 as close to 0V DC as possible.
NOTE! The voltage across 1R19 will vary continuously because of correction pulses from the microcomputer.
After adjustment of the detector, adjust the FM DISPLAY INDICATION, see section 8.

FM AF output

Connect a signal generator to the aerial input and adjust it to mono, 94MHz, 1mV EMF, $\Delta \pm 75$ kHz.
Connect AF voltmeter to 1TP14 (1TP15).
Press RADIO.
Press GO TO.
Press TURN until the display shows 87,5.
Press GO TO.
Press 940.
Adjust 1R204 (1R404) to 1V R.M.S.(Adjust type 2333 to 700mV R.M.S.)

Channel separation

Connect a stereo encoder to the aerial input and adjust it to 94MHz and unmodulated signal in one channel.
Connect AF voltmeter to 1TP14 or 1TP15 (the unmodulated channel).
Press RADIO.
Press GO TO.
Press TURN until the display shows 87,5.
Press GO TO.
Press 940.
Adjust 1R51 to minimum signal in the unmodulated channel.
Connect AF voltmeter to the other channel, and adjust the stereo encoder to unmodulated signal in the same channel.
Check, adjust to symmetrical channel separation.

FM stop level

Connect a signal generator to the aerial input, and adjust it to 94MHz, 20 μ V EMF, $\Delta \pm 75$ kHz.
Press RADIO.
Press GO TO.
Press TURN until the display shows 87,5.
Press GO TO.
Press 940.
Turn 1R25 anticlockwise to stop.
Turn 1R25 clockwise until the LOCKED indicator just goes on.

AM

For at undgå indvirkning fra ACC'en, anbefales det at kortslutte 1C62.

LW oscillator

Der skal ikke tilføres signal.
Tilslut DC voltmeter til 1TP16.
Tryk RADIO.
Tryk GO TO.
Tryk TURN til frekvensdisplayet viser 150.
Juster 1L9 til 2V $\pm 0,25$ V.
Tryk GO TO
Tryk 350.
Juster 1C56 til 25V $\pm 0,5$ V
Gentag evt. proceduren.

MW oscillator

Der skal ikke tilføres signal.
Tilslut DC voltmeter til 1TP16.
Tryk RADIO.
Tryk GO TO.
Tryk TURN til frekvensdisplayet viser 150.
Tryk GO TO.
Tryk 520.
Juster 1L8 til 2V $\pm 0,25$ V.
Tryk GO TO.
Tryk 1610.
Juster 1C55 til 25V $\pm 0,5$ V.
Gentag evt. proceduren.

AM MF

Tilslut en sweepgenerator til antennenindgangen, og indstil den til centerfrekvens 455 kHz $\Delta 10$ kHz.
Tilslut et oscilloskop til 1IC7 ben 13.
Tryk RADIO.
Tryk GO TO.
Tryk TURN til frekvensdisplayet viser 150.
Tryk GO TO.
Tryk 1500.
Kortslut 1R98.
Juster 1L13 og 1L14 til maksimum og symmetrisk MF kurve.
Kortslutningen over 1R98 fjernes.

ANTENNEKREDSE

MW antennekredsene skal justeres først.

MW

Tilslut en målesender til antennenindgangen, og indstil den til 1500 kHz, 30% modulation.
Tilslut oscilloskop eller LF voltmeter til 1IC7 ben 13.
Tryk RADIO.
Tryk GO TO.
Tryk TURN til frekvensdisplayet viser 150.
Tryk GO TO.
Tryk 1500.
Juster 1C83 til maksimum output.
Målesenderens frekvens ændres til 575 kHz.
Tryk GO TO.
Tryk 575 kHz.
Juster 1L12 til maksimum output.
Gentag evt. proceduren.

AM

In order to avoid any kind of influence from the AGC, it is recommended that 1C62 be short-circuited.

LW oscillator

Do not input a signal.
Connect DC voltmeter to 1TP16.
Press RADIO.
Press GO TO.
Press TURN until the frequency display shows 150.
Adjust 1L9 to 2V $\pm 0,25$ V.
Press GO TO.
Press 350.
Adjust 1C56 to 25V $\pm 0,5$ V.
Repeat this procedure if necessary.

MW oscillator

Do not input a signal.
Connect DC voltmeter to 1TP16.
Press RADIO.
Press GO TO.
Press TURN until the frequency display shows 150.
Press GO TO.
Press 520.
Adjust 1L8 to 2V $\pm 0,25$ V.
Press GO TO.
Press 1610.
Adjust 1C55 to 25V $\pm 0,5$ V.
Repeat this procedure if necessary.

AM IF

Connect a sweep generator to the aerial input, and adjust it to centre frequency, 455 kHz $\Delta 10$ kHz.
Connect an oscilloscope to 1IC7 pin 13.
Press RADIO.
Press GO TO.
Press TURN until the frequency display shows 150.
Press GO TO.
Press 1500.
Short-circuit 1R98.
Adjust 1L13 and 1L14 to maximum and symmetrical IF curve.
Remove the short-circuit across 1R98.

AERIAL CIRCUITS

The MW aerial circuits must be adjusted first.

MW

Connect a signal generator to the aerial input, and adjust it to 1500 kHz, 30% modulation.
Connect oscilloscope or AF voltmeter to 1IC7 pin 13.
Press RADIO.
Press GO TO.
Press TURN until the frequency display shows 150.
Press GO TO.
Press 1500.
Adjust 1C83 to maximum output.
Signal generator frequency is changed to 575 kHz.
Press GO TO.
Press 575 kHz.
Adjust 1L12 to maximum output.
Repeat this procedure if necessary.

LW

Målesenderens frekvens ændres til 330 kHz.
Tryk GO TO.
Tryk 330.
Juster 1C81 til maksimum output.
Målesenderens frekvens ændres til 160 kHz.
Tryk GO TO.
Tryk 160.
Juster 1L11 til maksimum output.
Gentag evt. proceduren.

AM stop niveau

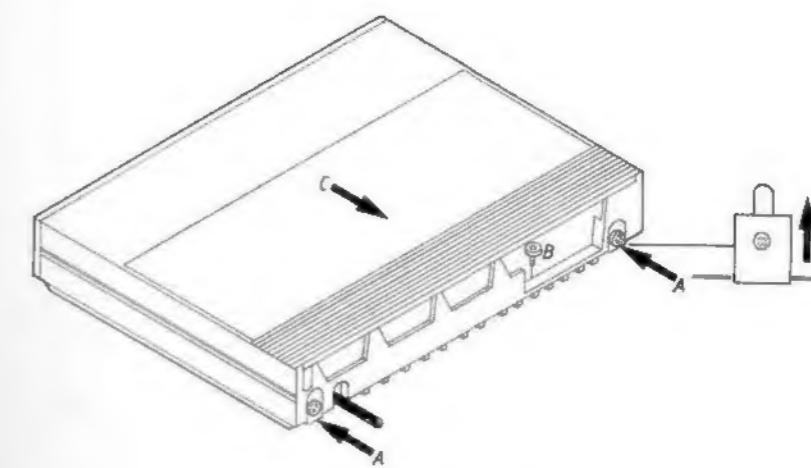
Kortslutninger over 1C62 fjernes.
Tilslut en målesender til antennenindgangen, og
indstil den til 1MHz 30% modulation, og 30 µV.
Tilslut DC voltmeter til kollektor på 1TR5.
Tryk RADIO.
Tryk GO TO.
Tryk TURN til frekvensdisplayet viser 150.
Tryk GO TO.
Tryk 1000.
Juster 1R73 til 2,5 V.

LW

The signal generator frequency is changed to
330 kHz.
Press GO TO.
Press 330.
Adjust 1C81 to maximum output.
Change the signal generator frequency to 160 kHz.
Press GO TO.
Press 160.
Adjust 1L11 to maximum output.
Repeat this procedure if necessary.

AM stop level

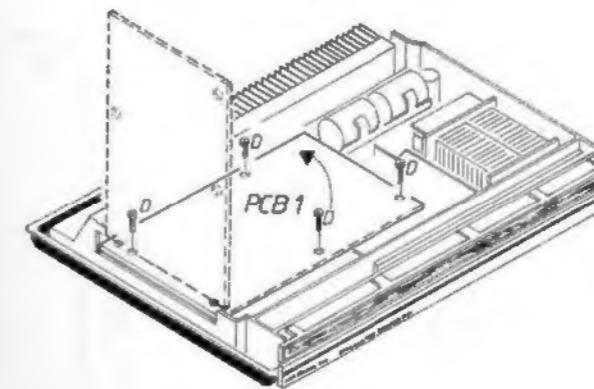
Remove the short-circuit across 1C62.
Connect a signal generator to the aerial input, and
adjust it to 1MHz 30% modulation, and 30µV.
Connect DC voltmeter to the collector at 1TR5.
Press RADIO.
Press GO TO.
Press TURN until the frequency display shows 150.
Press GO TO.
Press 1000.
Adjust 1R73 to 2.5V.

Adsættelse**Dismantling****Kabinet**

- Løsn skruerne, skub op og stram.
- Løft kølegitteret og fjern skruen i stikmodulet.
- Pres kabinetet ca. 1 cm bagud og løft op.

Cabinet

- Loosen the screws, push up and tighten.
- Lift the heat dissipation grill and remove the screw from the socket module.
- Push the cabinet approx. 1 cm backwards and lift it out.

**PCB1**

- Fjern skruerne D (4 stk.).
- Placer PCB1 i servicestilling som vist.

PCB1

- Remove the screws D (4 pcs.).
- Place PCB1 in service position as shown.